R410A

# eco-lution

## High Performance Air Conditioning

# FD series

Inverter Packaged Air-Conditioners

MITSUBISHI HEAVY INDUSTRIES, LTD.

Our Technologies, Your Tomorrow

50/60Hz

09P02E-A-0

# Individual flap control system

According to room temperature conditions, four directions of air flow can be controlled by individual flap as preferred.
As individual flap control is available even after installation, installation area became wider than before.

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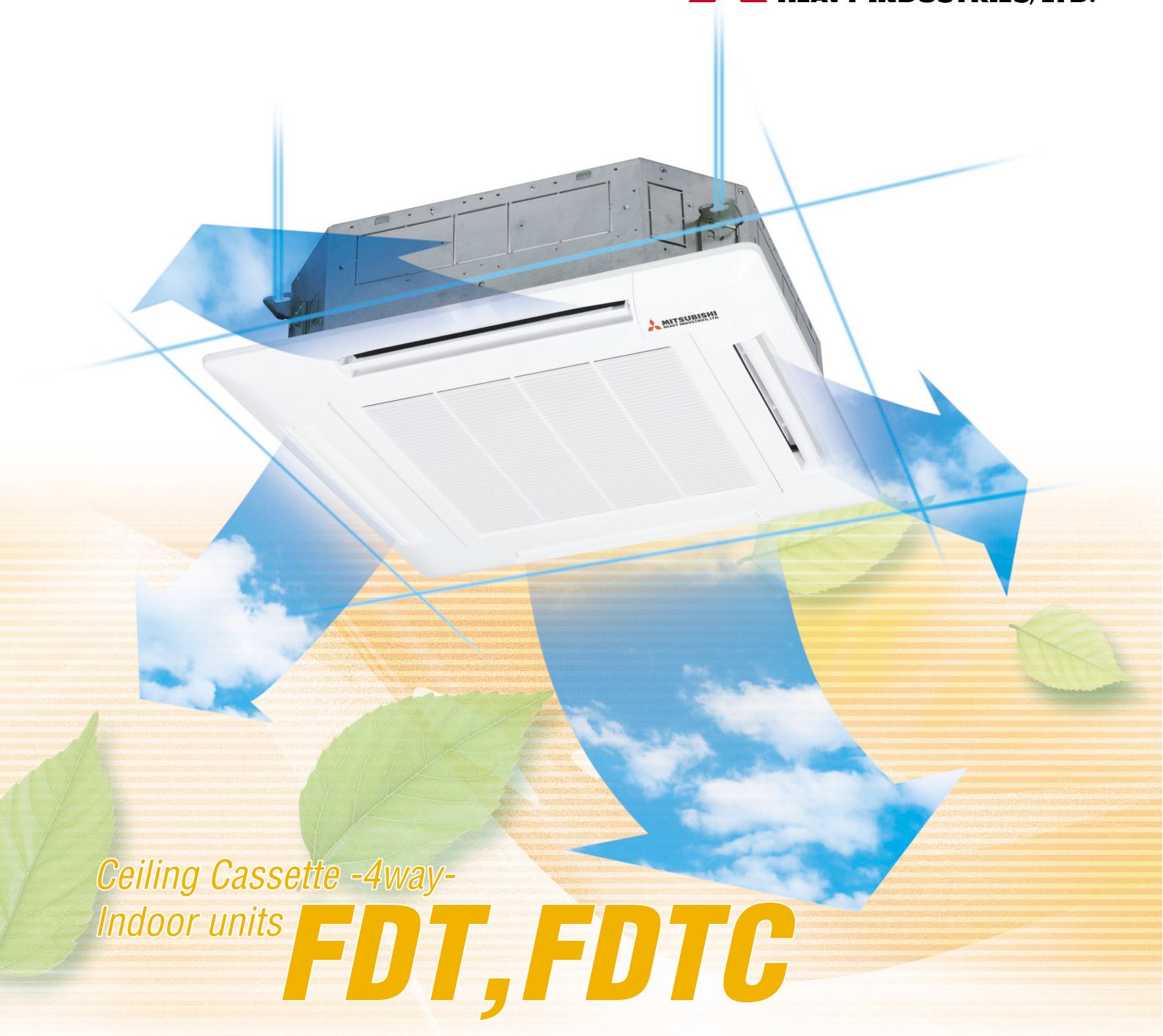
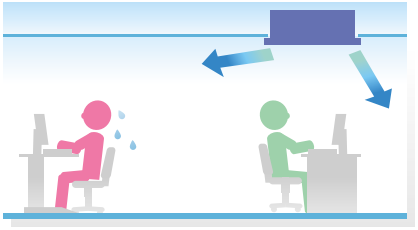
MITSUBISHI HEAVY INDUSTRIES, LTD.

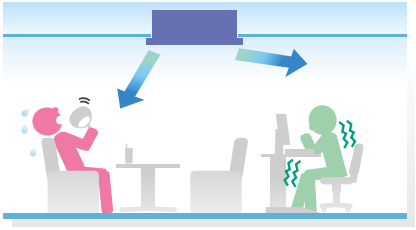


*Ceiling Cassette -4way-*
*Indoor units*

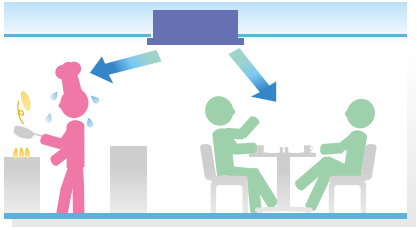
# FDT, FDTC



For person who is far from the indoor unit



For both persons who are feeling hot or cold



Can cool both the kitchen and the guests

# New Inverter Series

## All models employ R410A, with RoHS* directive

R410A

RoHS

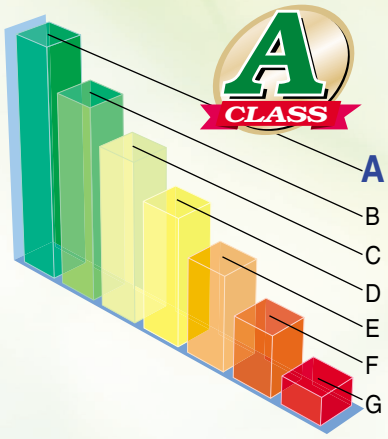
*RoHS : Restriction of Hazardous Substances

## Industry Leading COP

Thanks to achievement of the highest COP level in the industry, the energy consumption has been cut by 30~49% compared with our former models (constant speed models).

## Energy labeling "Class A"

MHI models have cleared the class A standard, the highest energy saving level, with their high COP (coefficient of performance).




### Achieved COP 5.67

based on 50% capacity of FDT100V (inverter model) in heating operation

Air-conditioners are generally selected with the operation under the most severe ambient temperature conditions. The inverter constantly adjusts compressor output to meet the exact demand of the indoor units.

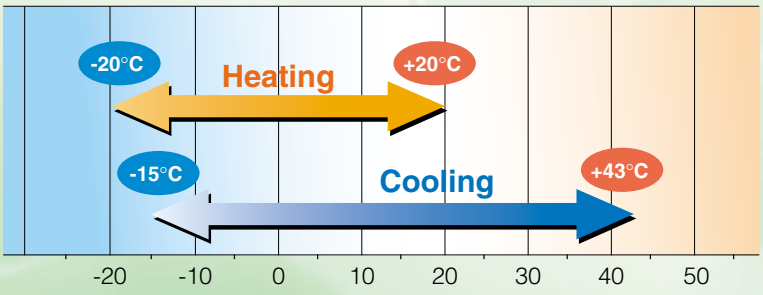
i.e. In case that selecting the capacity of an inverter air-conditioner based on heating operation at -5°C, its capacity drops by 50% at 7°C(ISO-TI measurement condition) and operation period at 50% capacity is normally longer than that at 100% of nominal heating capacity.

Considering annual electrical power consumption of inverter air-conditioners, it is quite important to give the first priority to 50% actual capacity and selecting inverter air-conditioners is the best solution for saving energy and protecting the environment.

### Wide range of operation

(FDC 100/125/140)

Our new advanced technology has expanded the heating and cooling operation range. This permits installation of the units considering a heating and cooling operation under a low outdoor temperature conditions down to -20°C.

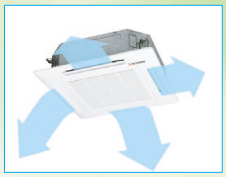
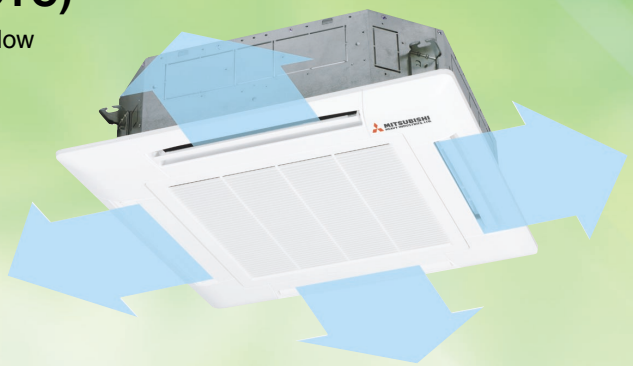



### New remote control for all indoor units

Applying nonpolar 2-core in new remote control line, it is very convenient for installation including renewal case.

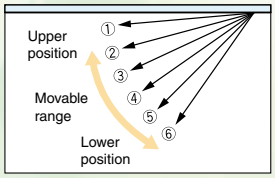
## Individual flap control system (FDT, FDTC)

According to room temperature conditions, four directions of air flow can be controlled by individual flap as preferred.
As individual flap control is available even after installation, installation area became wider than before.

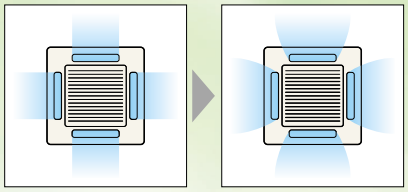



## Flap control system

Selection of louver position is possible. Louvers can be set at different angles.



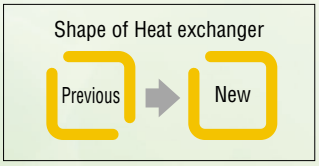

Due to optimization of outlet design of air flow with our new advanced technology, sufficient air flow is secured and long reach of air flow is realized. (FDT)




## The thinnest design

Thanks to new design of heat exchanger changed from 2 parts to 1 part, the height of indoor unit is reduced drastically.

Furthermore applying DC fan motors, the highest energy efficiency level, reduction of weight and significant compact design are realized.



## High efficiency

- **Reduction of air flow pressure loss**

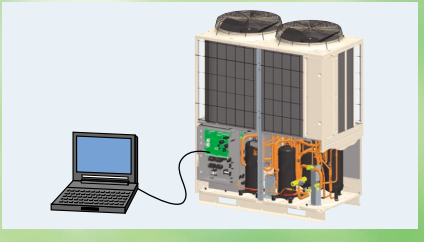
  Expansion of outlet air flow area realizes reduction of pressure loss caused by air flow in the indoor unit. Load of fan motor is decreased and efficiency is increased.

- **Increase of heat transfer efficiency**

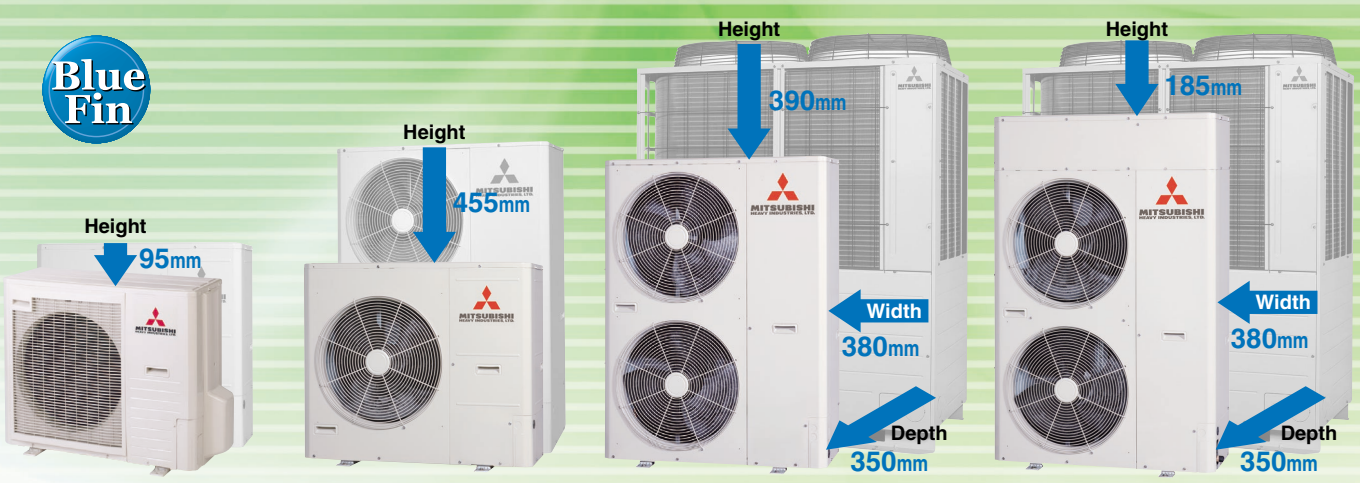
  Applying high efficient piping in heat exchanger and optimization of heat exchanger (2parts ➡ 1part) increases heat transfer efficiency.

## Monitoring Function

Equipped with RS232C for connection directly to your PC monitoring and service tasks made simple with our service software (“Mente PC”).



# Industry leading energy efficiency and



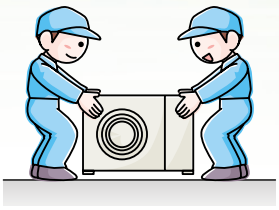

**FDC71VN** (3.0HP)

**FDC100VN/VS** (4.0HP)
**FDC125VN/VS** (5.0HP)
**FDC140VN/VS** (6.0HP)

**FDC200VS** (8.0HP)

**FDC250VS** (10.0HP)

Easy installation

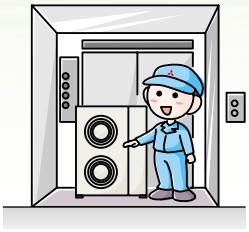


**Reduction in weight (kg)**

| | Former model | New model | Reduction |
|---|---|---|---|
| 3.0HP | 63 | 60 | -3 |
| 4.0HP | 82 | 74 | -8 |
| 5.0HP | 118 | 74 | -44 |
| 6.0HP | 125 | 74 | -51 |
| 8.0HP | 225 | 122 | -103 |
| 10.0HP | 225 | 140 | -85 |

* Comparison with former models

Fits into elevators



**Reduction in volume (%)**

| | Former model | New model | Reduction |
|---|---|---|---|
| 3.0HP | 253 | 224 | 11% |
| 4.0HP | 328 | 303 | 8% |
| 5.0HP | 467 | 303 | 35% |
| 6.0HP | 467 | 303 | 35% |
| 8.0HP | 1643 | 467 | 72% |
| 10.0HP | 1643 | 540 | 67% |

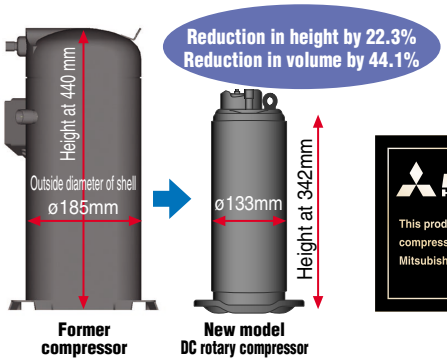
* Comparison with former models

## Compact Design

### Size reduction and high efficiency performance on the DC twin rotary compressor(4-6HP)

Employment of DC twin rotary compressor has enabled to utilize a high-speed range of up to 120 rps at the maximum to secure the required capacity.

Optimum compressor control has been realized by employing the vector control* and the starting current has been improved significantly compared with former models. Moreover, vibration has been reduced.




* Vector control means a. technique to realize an optimum control by converting the current wave to a smooth sinusoidal waveform

MITSUBISHI HEAVY INDUSTRIES, LTD.
This product is equipped with a compressor manufactured by Mitsubishi Heavy Industries Ltd.

### Employment of the inverter compressor(8/10HP)

A control over wide range of capacity and a high efficiency has been realized by inverter-driven scroll compressors.

In addition, the starting current significantly is improved.

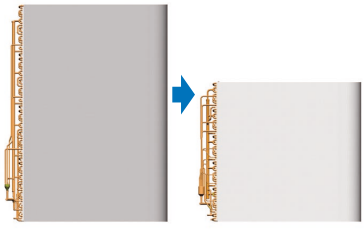
The size has also been reduced by 3.2% in height and 31.8% in volume.

### Improved efficiency of heat exchanger

Redesigning the fins to a straight shape has reduced the pressure loss of the airflow in the heat exchanger. Surface treatment on the fin has enhanced the frost resistance capacity compared with former models.

Owing to the reduction in the size of heat exchanger, the appropriate number of circuits for each HP has been applied. Employment of a high-speed motor has increased the airflow and enabled to keep the cooling capacity under a condition of higher outdoor air temperatures*.

* Limitation of use is around 43℃ at the maximum.



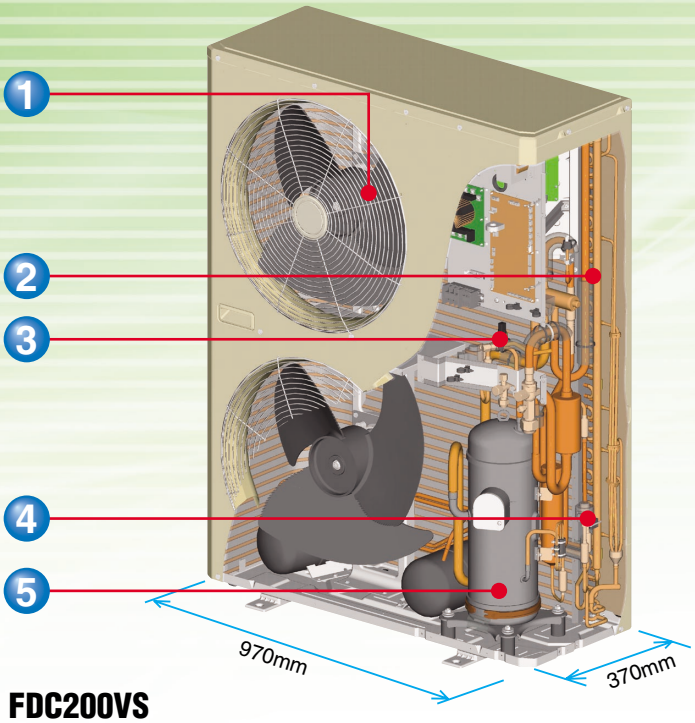

### Employment of DC fan motor

Employment of DC fan motor has enabled to realize an excellent efficiency of approx. 60% higher than former models.

### Controllability

Reliability in the protection of compressor has been improved by optimizing the controls of oil return, electronic expansion valve, etc.

# high reliability from our high technology

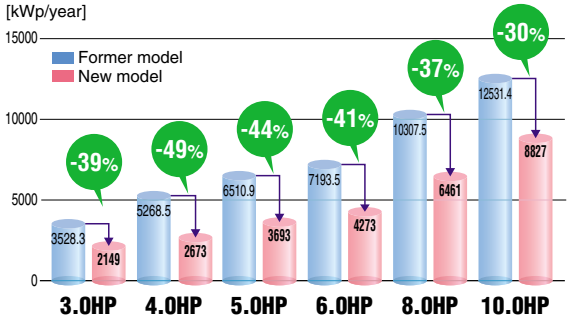



**FDC200VS**
**(8.0HP)**

- POINT 1 — DC fan motor uses less energy
- POINT 2 — Optimization of heat exchanger path. More efficient heating and cooling
- POINT 3 — Super heat control with low pressure sensor, works better in tough conditions
- POINT 4 — High efficiency refrigeration circuit
- POINT 5 — Newly developed High efficiency DC scroll compressor

## High Efficiency

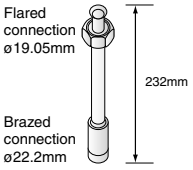
New Inverter Technology means a 30~49% decrease in annual energy consumption.




Calculation condition: based on JRA4048 place: Tokyo, type of the room: shop

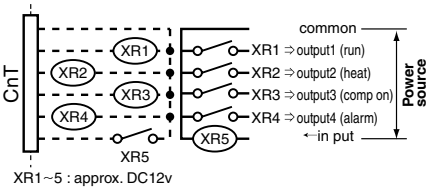
## Installation workability (8&10HP)

Using piping attachment that has flared connection and brazed connection ends, there is no need conduct brazing work inside the outdoor unit.




## Convenience

A dry contact is equipped on an indoor unit to meet a possible need for signal output on the site.




XR1~5 : approx. DC12v

## Consideration on the Environment

### Employment of lead-free solder

**Adapt to RoHS**

In order to comply with RoHS standard, the new inverter series products use lead-free solder. It was considered to be too difficult to use lead-free solder because it requires higher soldering temperatures at assembling, which could jeopardize the reliability of assembly, etc. PbF soldering method developed by us, however, has enabled a higher reliability for lead-free printed circuit boards.

*"RoHS" is the abbreviation of the new European standard, which means Reduction of Hazardous Substances.

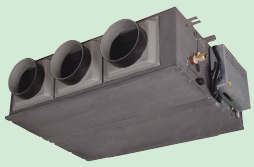
### Employment of the new refrigerant R410A

All models of the New inverter series use a new refrigerant R410A characterized by the ozone depletion coefficient being 0.

### Energy Conservation

A High Performance and Excellent Energy Conservation are achieved at the same time by an increased capacity of heat exchanger and employment of high efficiency DC motor etc.

# SINGLE [OUTDOOR UNIT : INDOOR UNIT = 1 : 1]

| Type | | | Capacity | | |
|---|---|---|---|---|---|
| | | HP | 1.5 | 2.0 | 2.5 |
| | | kW | 4.0 | 5.0 | 6.0 |
| | | Btu / h | 13,700 | 17,100 | 19,100 |
| | | kcal / h | 3,440 | 4,300 | 4,816 |
| CEILING CASSETTE | 4way **FDT** | Indoor unit | | | |
| | | | FDT40V | FDT50V | FDT60V |
| | | Outdoor unit | | | |
| | | 1phase | SRC40ZIX-S | SRC50ZIX-S | SRC60ZIX-S |
| | | 3phase | | | |
| | | Set 1phase | **FDT40ZIXV** | **FDT50ZIXV** | **FDT60ZIXV** |
| | | Set 3phase | | | |
| | 4way compact (600 x 600mm) **FDTC** | Indoor unit | NEW | | |
| | | | FDTC40VB | FDTC50VB | FDTC60VB |
| | | Outdoor unit | | | |
| | | 1phase | SRC40ZIX-S | SRC50ZIX-S | SRC60ZIX-S |
| | | Set 1phase | **FDTC40ZIXVB** | **FDTC50ZIXVB** | **FDTC60ZIXVB** |
| DUCT CONNECTED | High Static pressure **FDU** | Indoor unit | | | |
| | | Outdoor unit | | | |
| | | 1phase | | | |
| | | 3phase | | | |
| | | Set 1phase | | | |
| | | Set 3phase | | | |
| | Low/Middle Static pressure **FDUM**  | Indoor unit | | | |
| | | | | FDUM50V | FDUM60V |
| | | Outdoor unit | | | |
| | | 1phase | | SRC50ZIX-S | SRC60ZIX-S |
| | | 3phase | | | |
| | | Set 1phase | | **FDUM50ZIXV** | **FDUM60ZIXV** |
| | | Set 3phase | | | |
| CEILING SUSPENDED | **FDEN** | Indoor unit | | | |
| | | | FDEN40V | FDEN50V | FDEN60V |
| | | Outdoor unit | | | |
| | | 1phase | SRC40ZIX-S | SRC50ZIX-S | SRC60ZIX-S |
| | | 3phase | | | |
| | | Set 1phase | **FDEN40ZIXV** | **FDEN50ZIXV** | **FDEN60ZIXV** |
| | | Set 3phase | | | |

## Range (Rated Cooling Capacity)

| 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 |
|---|---|---|---|---|---|
| 7.1 | 10.0 | 12.5 | 14.0 | 20.0 | 25.0 |
| 23,900 | 34,100 | 42,700 | 47,800 | 68,300 | 85,400 |
| 6,020 | 8,600 | 10,750 | 12,040 | 17,200 | 21,500 |
| | | | | | |
| FDT71V | FDT100V | FDT125V | FDT140V | | |
| | | | | | |
| FDC71VN | FDC100VN | FDC125VN | FDC140VN | | |
| | FDC100VS | FDC125VS | FDC140VS | | |
| **FDT71VNV** | **FDT100VNV** | **FDT125VNV** | **FDT140VNV** | | |
| | **FDT100VSV** | **FDT125VSV** | **FDT140VSV** | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FDU71V | FDU100V | FDU125V | FDU140V | FDU200V | FDU250V |
| | | | | | |
| FDC71VN | FDC100VN | FDC125VN | FDC140VN | | |
| | FDC100VS | FDC125VS | FDC140VS | FDC200VS | FDC250VS |
| ***FDU71VNV** | ***FDU100VNV** | ***FDU125VNV** | ***FDU140VNV** | | |
| | ***FDU100VSV** | ***FDU125VSV** | ***FDU140VSV** | **FDU200VSV** | **FDU250VSV** |
| | | | | | |
| FDUM71V | FDUM100V | FDUM125V | FDUM140V | | |
| | | | | | |
| FDC71VN | FDC100VN | FDC125VN | FDC140VN | | |
| | FDC100VS | FDC125VS | FDC140VS | | |
| **FDUM71VNV** | **FDUM100VNV** | **FDUM125VNV** | **FDUM140VNV** | | |
| | **FDUM100VSV** | **FDUM125VSV** | **FDUM140VSV** | | |
| | | | | | |
| FDEN71V | FDEN100V | FDEN125V | FDEN140V | | |
| | | | | | |
| FDC71VN | FDC100VN | FDC125VN | FDC140VN | | |
| | FDC100VS | FDC125VS | FDC140VS | | |
| **FDEN71VNV** | **FDEN100VNV** | **FDEN125VNV** | **FDEN140VNV** | | |
| | **FDEN100VSV** | **FDEN125VSV** | **FDEN140VSV** | | |

*Not available in 60Hz

# INDOOR UNIT

## CEILING CASSETTE -4way-

# FDT

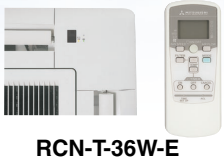
FDT 40/50/60/71/
100/125/140V

Wired remote control

RC-E3
(Option)

RCH-E3
(Option)

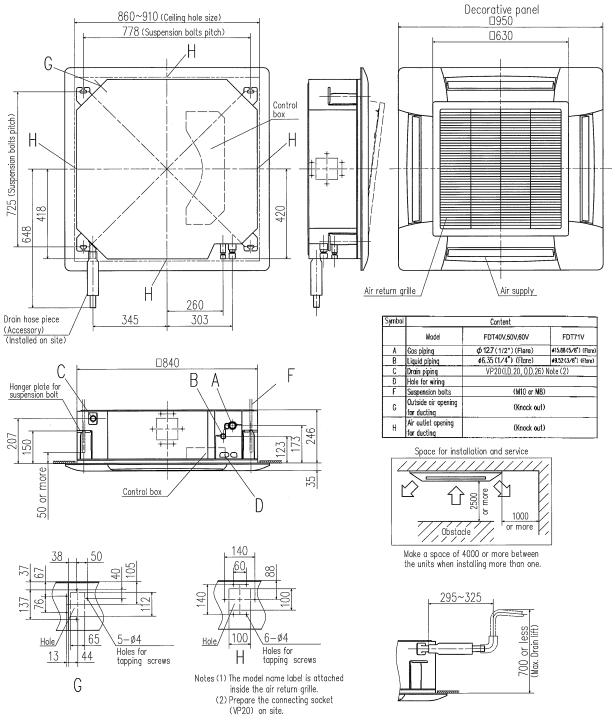
Wireless remote control



RCN-T-36W-E
(Option)

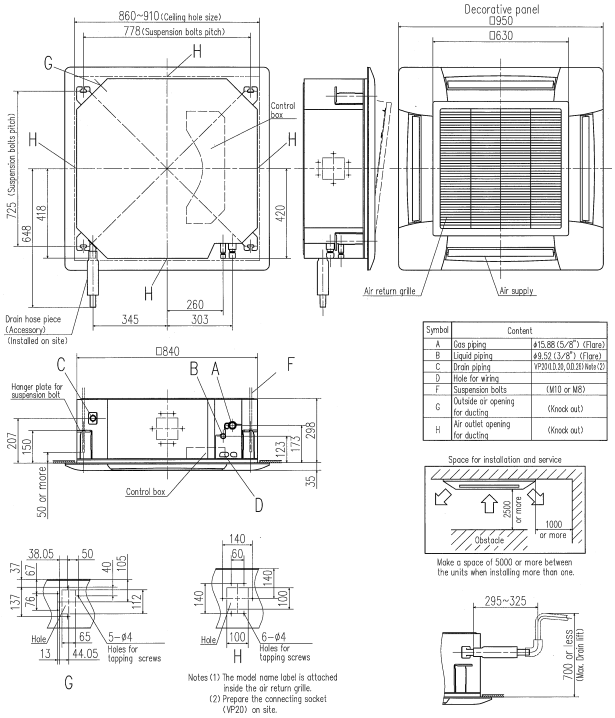
## Outline drawing (Unit:mm)

Model FDT40,50,60,71V


860~910 (Ceiling hole size)
778 (Suspension bolts pitch)
Decorative panel
□950
□630
Control box
Air return grille
Air supply
Drain hose piece (Accessory) (Installed on site)
725 (Suspension bolts pitch)
□840
Hanger plate for suspension bolt
Control box
Space for installation and service
Obstacle
Make a space of 4000 or more between the units when installing more than one.
295~325
700 or less (Max. from itself)
Notes (1) The model name label is attached inside the air return grille.
(2) Prepare the connecting socket (VP20) on site.

| Symbol | Content | |
|---|---|---|
| | Model | FDT40V,50V,60V / FDT71V |
| A | Gas piping | ϕ12.7 (1/2") (Flare) / ϕ15.88 (5/8") (Flare) |
| B | Liquid piping | ϕ6.35 (1/4") (Flare) / ϕ9.52 (3/8") (Flare) |
| C | Drain piping | VP20 (O.D. 26) Note (2) |
| D | Hole for wiring | |
| F | Suspension bolts | (M10 or M8) |
| G | Outside air opening for ducting | (Knock out) |
| H | Air outlet opening for ducting | (Knock out) |

Model 100,125,140V


860~910 (Ceiling hole size)
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Decorative panel
□950
□630
Control box
Air return grille
Air supply
Drain hose piece (Accessory) (Installed on site)
725 (Suspension bolts pitch)
□840
Hanger plate for suspension bolt
Control box
Space for installation and service
Obstacle
Make a space of 5000 or more between the units when installing more than one.
295~325
700 or less (Max. from itself)
Notes (1) The model name label is attached inside the air return grille.
(2) Prepare the connecting socket (VP20) on site.

| Symbol | Content | |
|---|---|---|
| A | Gas piping | ϕ15.88 (5/8") (Flare) |
| B | Liquid piping | ϕ9.52 (3/8") (Flare) |
| C | Drain piping | VP20 (O.D. 26) Note (2) |
| D | Hole for wiring | |
| F | Suspension bolts | (M10 or M8) |
| G | Outside air opening for ducting | (Knock out) |
| H | Air outlet opening for ducting | (Knock out) |

## Point 1 Arrangement of installation balance of indoor unit

Checking from access ports with detachable covers at each corner, arrangement of installation balance of indoor unit can be available without removing a panel. Workability is improved and time of installation is reduced.

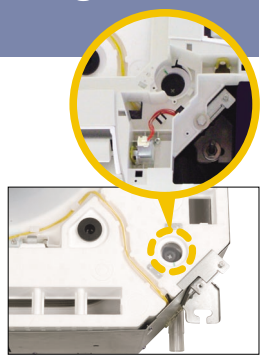
For wireless control simply insert the infrared receiver kit on a corner of the panel

wireless remote control

RCN-T-36W-E

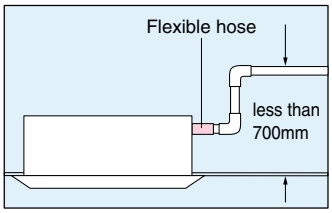
## Point 2 Easy checking of drain pan

Easy checking of drain pan condition is available by removing corner lid only. Due to new design changing fan motor is available without removing a panel. Temporally setting of drain pan is also available.



## Point 3 700mm Drain Pump

Drain can be discharged upwards by 700mm from the ceiling surface. It allows a piping layout with a high degree of freedom Depending on the installation location and 260mm flexible hose as a standard equipment supports easy workability.




## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDT40ZIXV | FDT50ZIXV | FDT60ZIXV |
|---|---|---|---|---|---|---|
| Indoor name | | | | FDT40V | FDT50V | FDT60V |
| Outdoor name | | | | SRC40ZIX-S | SRC50ZIX-S | SRC60ZIX-S |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | |
| Type | | | | Inverter | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 4.0 (1.8~4.7) | 5.0 (2.2~5.6) | 5.6 (2.8~6.3) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 4.5 (2.0~5.4) | 5.4 (2.5~6.3) | 6.7 (3.1~7.1) |
| Input | Cooling/Heating | | kW | 0.93/1.15 | 1.29/1.29 | 1.57/1.85 |
| COP | Cooling/Heating | | | 4.30/3.91 | 3.88/4.19 | 3.57/3.62 |
| Energy label | Cooling/Heating | | | A/A | A/A | A/A |
| Inrush current (Max. running current) | | | A | 5(12) | 5(14) | |
| Sound level*1 | Indoor | | dB(A) | Hi:33 Me:31 Lo:30 | | |
| | Outdoor | | | 47 | | 48 |
| Air flow | Indoor | | CMM | Hi:18 Me:16 Lo:14 | | |
| | Outdoor | | | 40 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | Unit:246x840x840 Panel:35x950x950 | | |
| Indoor unit: Net weight | Unit+Panel | | kg | 27.5(22+5.5) | | 29.5(24+5.5) |
| Indoor unit: Panel | | | | T-PSA-36W-E | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x 1 (Washable) | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-T-36W-E | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 640x800(+71)x290 | | |
| Outdoor unit: Net weight | | | kg | 43 | | |
| Outdoor unit: Type of compressor | | | | Scroll | | |
| Outdoor unit: Ref.control | | | | EEV | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 1.4(15) | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 6.35/12.7 | | |
| Range of usage: Ref.piping length | | | m | 30 | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 20 | | |
| | O/U is lower | | m | 20 | | |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | |
| | Heating | | O/U | -15~20 | | |

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDT71VNV | FDT100VNV | FDT125VNV | FDT140VNV | FDT100VSV | FDT125VSV | FDT140VSV |
|---|---|---|---|---|---|---|---|---|---|---|
| Indoor name | | | | FDT71V | FDT100V | FDT125V | FDT140V | FDT100V | FDT125V | FDT140V |
| Outdoor name | | | | FDC71VN | FDC100VN | FDC125VN | FDC140VN | FDC100VS | FDC125VS | FDC140VS |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | |
| Type | | | | Inverter | | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 7.1 (3.2~8.0) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 8.0 (3.6~9.0) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | | kW | 1.90/2.07 | 2.76/2.74 | 4.05/3.77 | 4.98/4.57 | 2.76/2.74 | 4.05/3.77 | 4.98/4.57 |
| COP | Cooling/Heating | | | 3.74/3.86 | 3.62/4.09 | 3.09/3.71 | 2.81/3.50 | 3.62/4.09 | 3.09/3.71 | 2.81/3.50 |
| Energy label | Cooling/Heating | | | A/A | A/A | B/A | C/B | A/A | B/A | C/B |
| Inrush current (Max. running current) | | | A | 5(17) | 5(24) | | | 5(15) | | |
| Sound level*1 | Indoor | | dB(A) | Hi:35 Me:33 Lo:31 | Hi:40 Me:37 Lo:35 | Hi:42 Me:40 Lo:37 | Hi:43 Me:41 Lo:38 | Hi:40 Me:37 Lo:35 | Hi:42 Me:40 Lo:37 | Hi:43 Me:41 Lo:38 |
| | Outdoor | | | 48 | 49 | Cooling:50 Heating:51 | 51 | 49 | Cooling:50 Heating:51 | 51 |
| Air flow | Indoor | | CMM | Hi:21 Me:19 Lo:17 | Hi:27 Me:24 Lo:20 | Hi:30 Me:27 Lo:23 | | Hi:27 Me:24 Lo:20 | Hi:30 Me:27 Lo:23 | |
| | Outdoor | | | Cooling:60 Heating:50 | Cooling:75 Heating:73 | | | Cooling:75 Heating:73 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | Unit:246x840x840 Panel:35x950x950 | Unit:298x840x840 Panel:35x950x950 | | | | | |
| Indoor unit: Net weight | Unit+Panel | | kg | 29.5 (24+5.5) | 32.5 (27+5.5) | | | | | |
| Indoor unit: Panel | | | | T-PSA-36W-E | | | | | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x 1 (Washable) | | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-T-36W-E | | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 750x880(+88)x340 | 845x970x370 | | | | | |
| Outdoor unit: Net weight | | | kg | 60 | 74 | | | | | |
| Outdoor unit: Type of compressor | | | | Rotary | | | | | | |
| Outdoor unit: Ref.control | | | | EEV | | | | | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 2.95(30) | 3.8(30) | | | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/15.88 | | | | | | |
| Range of usage: Ref.piping length | | | m | 50 | | | | | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 30 | | | | | | |
| | O/U is lower | | m | 15 | | | | | | |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | | | | | |
| | Heating | | O/U | -10~20 | -20~20 | | | | | |

The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

# INDOOR UNIT

## CEILING CASSETTE -4way Compact (600 X 600mm)-

# FDTC

NEW

A CLASS

R410A

Fits into standard 600 x 600 ceiling

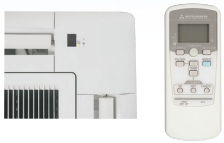
FDTC 40/50/60VB

**Wired remote control**

RC-E3
(Option)

RCH-E3
(Option)

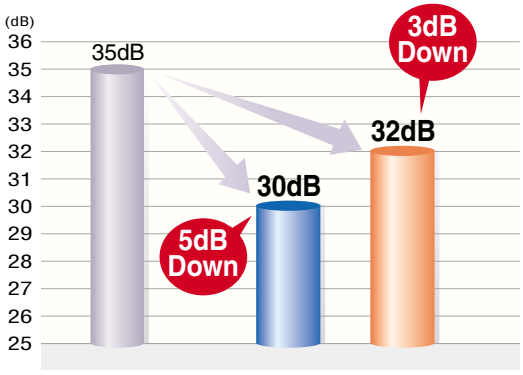
**Wireless remote control**



RCN-TC-24W-ER
(Option)

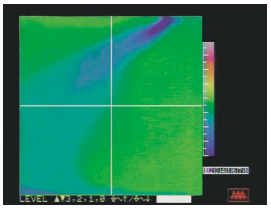
## Point 1 Quiet operation

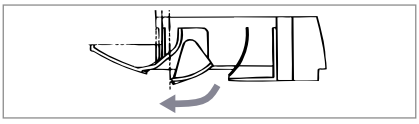
**(Sound level in the Lo mode)**




**FDTC40/50/60VB**

## Point 2 "CLEARER" Air Flow





New shape & angled louver redirects the air current away from the ceiling, to reduce ceiling stains

## Point 3 Installation Workability

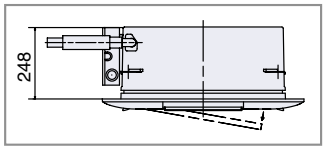
For wireless control simply insert the infrared receiver kit on a corner of the panel

wireless remote control
RCN-TC-24W-ER

## Point 4 Compact Concept

### The industry's lowest level 248mm height.

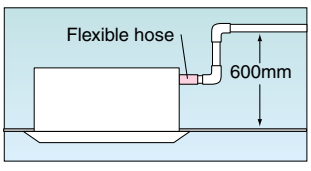
Panel size (700x700) is suitable for 600x600 ceiling panel. All indoor unit size is (WxD: 570x570). It brings easy installation for 600x600 ceiling panel.



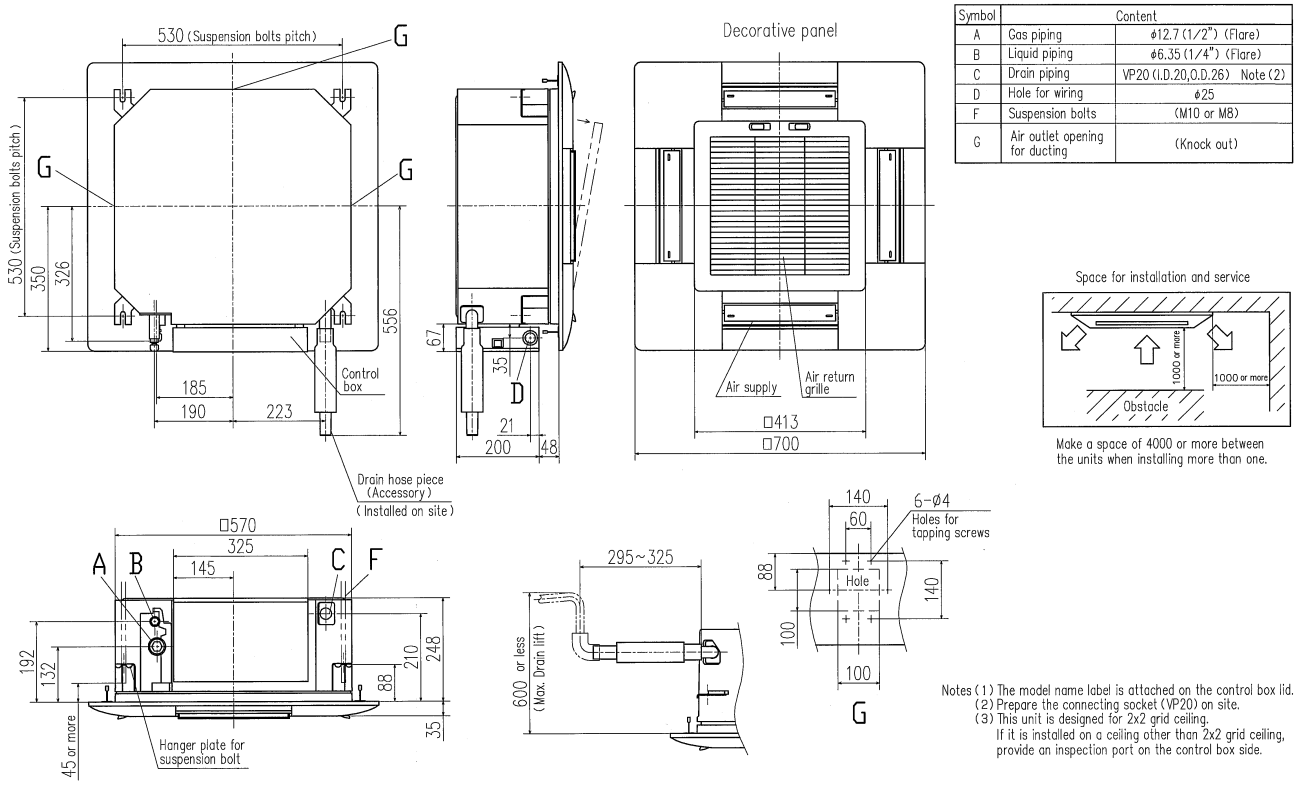

Ultra slim design at just 248mm above the ceiling

## Point 5 Comfortable and Convenient

- All units are 18.5kg, light weight unit.
- Thanks to width and depth of exterior dimensions of a indoor unit are 570mm each, the installation work can be conducted smoothly with a beautiful finishing in 2x2 ceiling size.
- **600mm Drain Pump is mounted.**
  Drain can be discharged upward by 600 mm from the ceiling surface close to the indoor unit. It allows a piping layout with a high degree of freedom depending on the installation location.



## Outline drawing (Unit:mm)




| Symbol | Content | |
|---|---|---|
| A | Gas piping | ø12.7 (1/2") (Flare) |
| B | Liquid piping | ø6.35 (1/4") (Flare) |
| C | Drain piping | VP20 (I.D.20,O.D.26) Note (2) |
| D | Hole for wiring | ø25 |
| F | Suspension bolts | (M10 or M8) |
| G | Air outlet opening for ducting | (Knock out) |

Notes (1) The model name label is attached on the control box lid.
(2) Prepare the connecting socket (VP20) on site.
(3) This unit is designed for 2x2 grid ceiling.
If it is installed on a ceiling other than 2x2 grid ceiling, provide an inspection port on the control box side.

## SPECIFICATIONS The values are for simultaneous Multi operation.

| Set model name | | | | FDTC40ZIXVB | FDTC50ZIXVB | FDTC60ZIXVB |
|---|---|---|---|---|---|---|
| Indoor name | | | | FDTC40VB | FDTC50VB | FDTC60VB |
| Outdoor name | | | | SRC40ZIX-S | SRC50ZIX-S | SRC60ZIX-S |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | |
| Type | | | | **Inverter** | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 4.0 (1.8~4.7) | 5.0 (2.2~5.6) | 5.6 (2.8~6.3) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 4.5 (2.0~5.4) | 5.4 (2.5~6.3) | 6.7 (3.1~6.7) |
| Input | Cooling/Heating | | kW | 1.04/1.10 | 1.56/1.45 | 1.99/2.08 |
| COP | Cooling/Heating | | | 3.85/4.09 | 3.21/3.72 | 2.81/3.22 |
| Energy label | Cooling/Heating | | | A/A | | C/C |
| Inrush current (Max. running current) | | | A | 5(12) | 5(14) | |
| Sound level*1 | Indoor | | dB(A) | Cooling Hi:42 Me:36 Lo:30 Heating Hi:42 Me:36 Lo:32 | | Cooling Hi:46 Me:39 Lo:30 Heating Hi:46 Me:39 Lo:32 |
| | Outdoor | | | 47 | | 48 |
| Air flow | Indoor | | CMM | Cooling Hi:11.5 Me:9 Lo:7 Heating Hi:11.5 Me:9 Lo:8 | | Cooling Hi:13.5 Me:10 Lo:7 Heating Hi:13.5 Me:10 Lo:8 |
| | Outdoor | | | 40 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | Unit:248x570x570 Panel:35x700x700 | | |
| Indoor unit: Net weight | Unit+Panel | | kg | 18.5 (15+3.5) | | |
| Indoor unit: Panel | | | | TC-PSA-25W-E | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x1 (Washable) | | |
| Indoor unit: Remote control(option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-TC-24W-ER | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 640x800(+71)x290 | | |
| Outdoor unit: Net weight | | | kg | 43 | | |
| Outdoor unit: Type of compressor | | | | Scroll | | |
| Outdoor unit: Ref.control | | | | EEV | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 1.4(15) | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 6.35/12.7 | | |
| Range of usage: Ref.piping length | | | m | 30 | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 20 | | |
| | O/U is lower | | m | 20 | | |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | |
| | Heating | | O/U | -15~20 | | |

The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

# INDOOR UNIT

## DUCT CONNECTED -High Static pressure-

# FDU

A CLASS

R410A

FDU71/100/125/140V

FDU200/250V

**Fan control kit**
**(100~200Pa)**

**U-FCRA**
**[For 200/250V]**
**(option)**

**Wired remote control**

**RC-E3**
**(Option)**

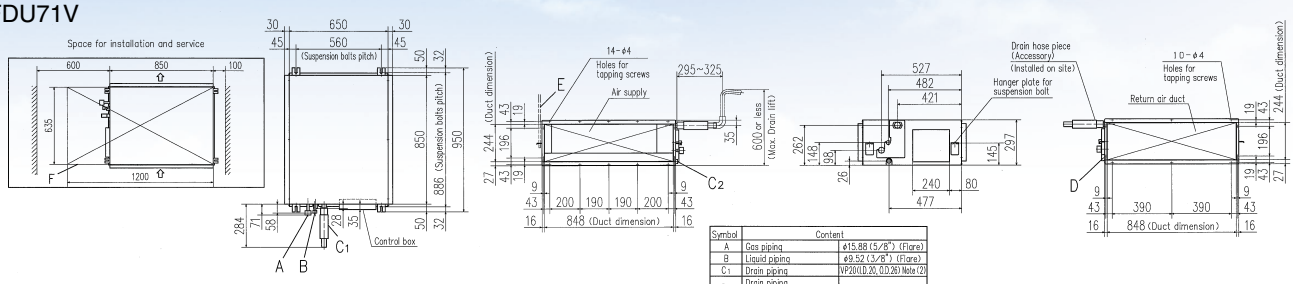
**RCH-E3**
**(Option)**

**Wireless remote control**

**RCN-KIT3-E**
**(Option)**

## Outline drawing (Unit:mm)

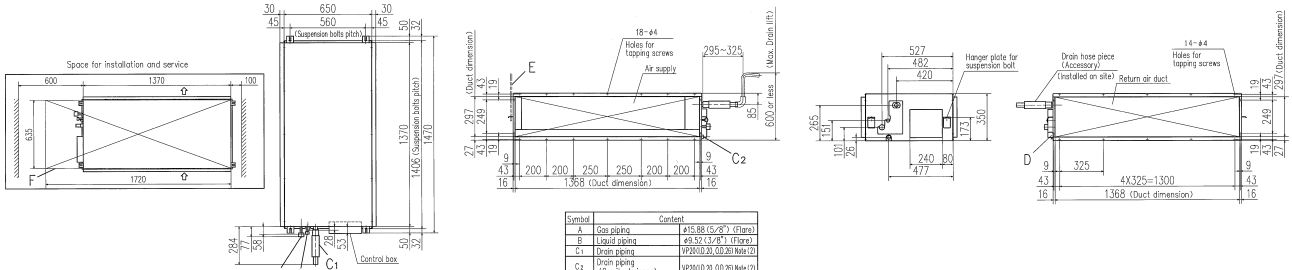
FDU71V




| Symbol | Content | |
|---|---|---|
| A | Gas piping | ϕ15.88 (5/8") (Flare) |
| B | Liquid piping | ϕ9.52 (3/8") (Flare) |
| C1 | Drain piping | VP20(I.D.20, O.D.26) Note (2) |
| C2 | Drain piping (Gravity drainage) | VP20(I.D.20, O.D.26) Note (2) |
| D | Hole for wiring | |
| E | Suspension bolts | (M10) |
| F | Inspection hole | (635X1200) |

Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

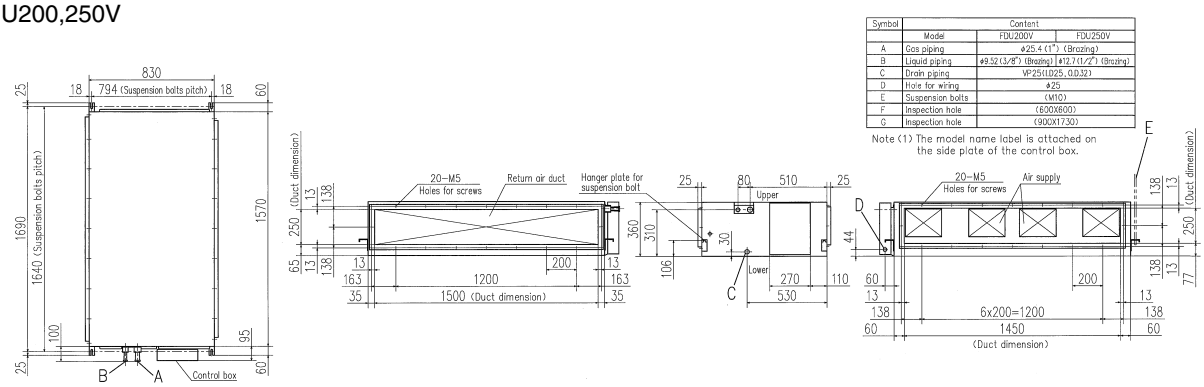
FDU100,125,140V




| Symbol | Content | |
|---|---|---|
| A | Gas piping | ϕ15.88 (5/8") (Flare) |
| B | Liquid piping | ϕ9.52 (3/8") (Flare) |
| C1 | Drain piping | VP20(I.D.20, O.D.26) Note (2) |
| C2 | Drain piping (Gravity drainage) | VP20(I.D.20, O.D.26) Note (2) |
| D | Hole for wiring | |
| E | Suspension bolts | (M10) |
| F | Inspection hole | (635X1200) |

Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

FDU200,250V




| Symbol | Content | | |
|---|---|---|---|
| | Model | FDU200V | FDU250V |
| A | Gas piping | ϕ25.4 (1") (Brazing) | |
| B | Liquid piping | ϕ9.52 (3/8") (Brazing) | ϕ12.7 (1/2") (Brazing) |
| C | Drain piping | VP25(I.D.25, O.D.32) | |
| D | Hole for wiring | ϕ25 | |
| E | Suspension bolts | (M10) | |
| F | Inspection hole | (600X800) | |
| G | Inspection hole | (900X1730) | |

Note (1) The model name label is attached on the side plate of the control box.

## Point 1 Enhanced installation workability

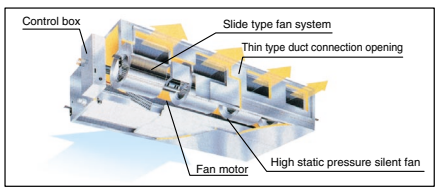
### Quiet, Lightweight and Compact

With the FDU71, the noise level is only 37dB (low), weight is only 40kg and height is only 297mm.
In addition 600mm Drain Pump is mounted in FDU71/100/125/140V.
The indoor unit is completely hidden in the ceiling, so this is suitable for spaces with classy interior decoration.

## Point 2 Adaptability to higher static pressures

### High static pressure of 200 Pa (FDU200/250V) extends the degree of freedom in the designing of air conditioners.

This is a real and earnest model for duct air-conditioning.
A unit external static pressure of up to 200 Pa (FDU200/250V) is possible. Precise air flow designing is possible.



## SPECIFICATIONS

The values are for simultaneous Multi operation.

*Not available in 60Hz

| Set model name | | | | *FDU71VNV | *FDU100VNV | *FDU125VNV | *FDU140VNV | *FDU100VSV | *FDU125VSV | *FDU140VSV |
|---|---|---|---|---|---|---|---|---|---|---|
| Indoor name | | | | FDU71V | FDU100V | FDU125V | FDU140V | FDU100V | FDU125V | FDU140V |
| Outdoor name | | | | FDC71VN | FDC100VN | FDC125VN | FDC140VN | FDC100VS | FDC125VS | FDC140VS |
| Power source | | | | 1Phase 220-240V 50Hz | | | | 3Phase 380-415V 50Hz | | |
| Type | | | | Inverter | | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 7.1 (3.2~8.0) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 8.0 (3.6~9.0) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | | kW | 2.08/2.21 | 2.88/2.99 | 4.04/3.79 | 4.95/4.43 | 2.88/2.99 | 4.04/3.79 | 4.95/4.43 |
| COP | Cooling/Heating | | | 3.41/3.62 | 3.47/3.75 | 3.09/3.69 | 2.83/3.61 | 3.47/3.75 | 3.09/3.69 | 2.83/3.61 |
| Energy label | Cooling/Heating | | | A/A | A/A | B/A | C/A | A/A | B/A | C/A |
| Inrush current (Max. running current) | | | A | 5(17) | 5(25) | 5(27) | 5(28) | 5(16) | 5(18) | 5(19) |
| Sound level*1 | Indoor | | dB(A) | Hi:41 Lo:37 | Hi:42 Lo:37 | Hi:43 Lo:38 | | Hi:42 Lo:37 | Hi:43 Lo:38 | |
| | Outdoor | | | 48 | 49 | Cooling:50 Heating:51 | 51 | 49 | Cooling:50 Heating:51 | 51 |
| Air flow | Indoor | | CMM | Hi:25 Lo:20 | Hi:34 Lo:27 | Hi:42 Lo:33.5 | | Hi:34 Lo:27 | Hi:42 Lo:33.5 | |
| | Outdoor | | | Cooling:60 Heating:50 | Cooling:75 Heating:73 | | | Cooling:75 Heating:73 | | |
| Static pressure | | | Pa | Standard:50, Max:130 | | | | | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | 297x850x650 | 350x1,370x650 | | | | | |
| Indoor unit: Net weight | | | kg | 40 | 63 | | | | | |
| Indoor unit: Air filter, Q'ty | | | | Procure locally | | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-KIT3-E | | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 750x880(+88)x340 | 845x970x370 | | | | | |
| Outdoor unit: Net weight | | | kg | 60 | 74 | | | | | |
| Outdoor unit: Type of compressor | | | | Rotary | | | | | | |
| Outdoor unit: Ref.control | | | | EEV | | | | | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 2.95(30) | 3.8(30) | | | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/15.88 | | | | | | |
| Range of usage: Ref.piping length | | | m | 50 | | | | | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 30 | | | | | | |
| Range of usage: Vertical height difference | O/U is lower | | m | 15 | | | | | | |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | | | | | |
| Operating temperature range | Heating | | O/U | -10~20 | -20~20 | | | | | |

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDU200VSV | FDU250VSV |
|---|---|---|---|---|---|
| Indoor name | | | | FDU200V | FDU250V |
| Outdoor name | | | | FDC200VS | FDC250VS |
| Power source | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | |
| Type | | | | Inverter | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 20.0 (7.0~22.4) | 25.0 (10.0~28.0) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 22.4 (7.6~25.0) | 28.0 (9.5~31.5) |
| Input | Cooling/Heating | | kW | 50Hz:6.59/6.08 | 50Hz: 9.91/8.50 |
| | | | | 60Hz:6.58/5.84 | 60Hz:10.21/8.22 |
| COP | Cooling/Heating | | | 50Hz:3.03/3.68 | 50Hz:2.52/3.29 |
| | | | | 60Hz:3.04/3.84 | 60Hz:2.45/3.41 |
| Energy label | Cooling/Heating | | | B/A | 50Hz:E/C 60Hz:E/B |
| Inrush current (Max. running current) | | | A | 5(24) | 5(27) |
| Sound level*1 | Indoor | | dB(A) | 51 | 52 |
| | Outdoor | | | 57 | Cooling:57 Heating:58 |
| Air flow | Indoor | | CMM | 50Hz:51, 60Hz:60 | 50Hz:68, 60Hz:80 |
| | Outdoor | | | Cooling:150 Heating:145 | |
| Static pressure | | | Pa | Standard:100, Max:200 | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | 360x1,570x830 | |
| Indoor unit: Net weight | | | kg | 92 | |
| Indoor unit: Air filter, Q'ty | | | | Procure locally | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-KIT3-E | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 1,300x970x370 | 1,505x970x370 |
| Outdoor unit: Net weight | | | kg | 122 | 140 |
| Outdoor unit: Type of compressor | | | | Scroll | |
| Outdoor unit: Ref.control | | | | EEV | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 5.4(30) | 7.2(30) |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/22.22 | 12.7/22.22 |
| Range of usage: Ref.piping length | | | m | 70 | |
| Range of usage: Vertical height difference | O/U is higher | | m | 30 | |
| Range of usage: Vertical height difference | O/U is lower | | m | 15 | |
| Operating temperature range | Cooling | | O/U | -15~43 *2 | |
| Operating temperature range | Heating | | O/U | -20~20 | |

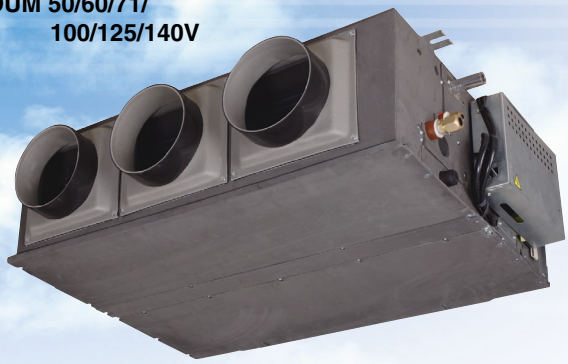
The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

# INDOOR UNIT

## DUCT CONNECTED -Middle Static pressure-

# FDUM

**FDUM 50/60/71/ 100/125/140V**



**Filter kit** (option)

**UM-FL1E : for 50**
**UM-FL2E : for 60, 71**
**UM-FL3E : for 100,125,140**

**Wired remote control**

**RC-E3** (Option)

**RCH-E3** (Option)

**Wireless remote control**

**RCN-KIT3-E** (Option)

## Point 1 Various Adaptability

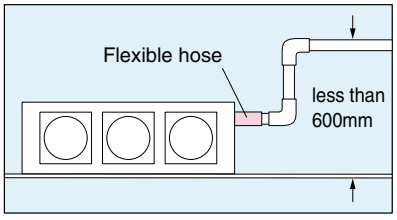
Selectable static pressure and Flexible duct design with selectable air suction (direct suction /duct suction) can meet wide pattern of installation.

**Static pressure Pa** (50/60Hz)

| model | Standard | Max |
|---|---|---|
| 50V | 50/40 | 85/90 |
| 60/71V | 50/40 | 85/100 |
| 100V | 60/60 | 90/100 |
| 125/140V | 60/55 | 85/100 |

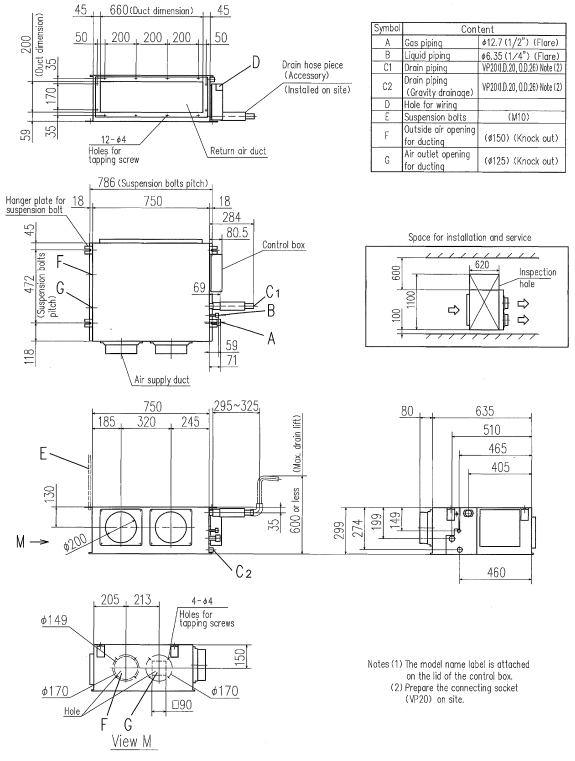
## Point 2 600mm Drain Pump

Drain can be discharged upwards by 600mm from the ceiling surface. It allows a piping layout with a high degree of freedom Depending on the installation location.




## Outline drawing(Unit:mm)

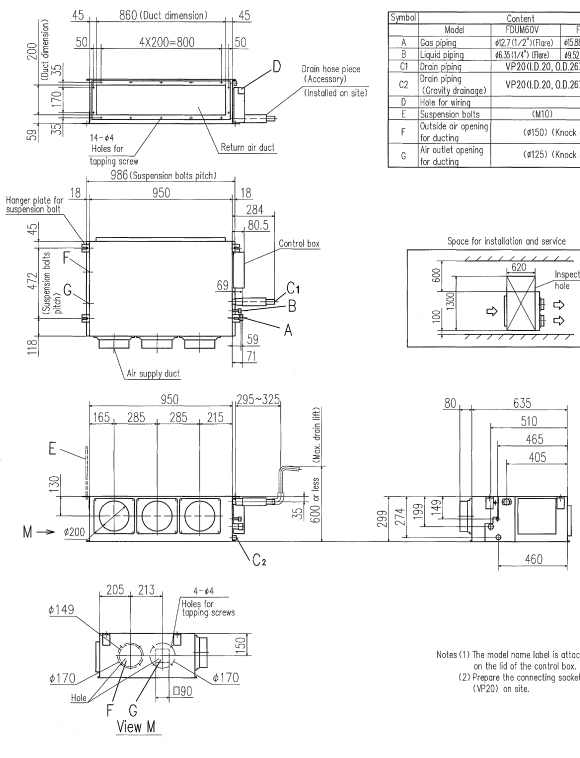
Model FDUM50V




| Symbol | Content | |
|---|---|---|
| A | Gas piping | ϕ12.7 (1/2") (Flare) |
| B | Liquid piping | ϕ6.35 (1/4") (Flare) |
| C1 | Drain piping | VP20(I.D.20, O.D.26) Note (2) |
| C2 | Drain piping (Gravity drainage) | VP20(I.D.20, O.D.26) Note (2) |
| D | Hole for wiring | |
| E | Suspension bolts | (M10) |
| F | Outside air opening for ducting | (ϕ150) (Knock out) |
| G | Air outlet opening for ducting | (ϕ125) (Knock out) |

Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

Models FDUM60V,71V

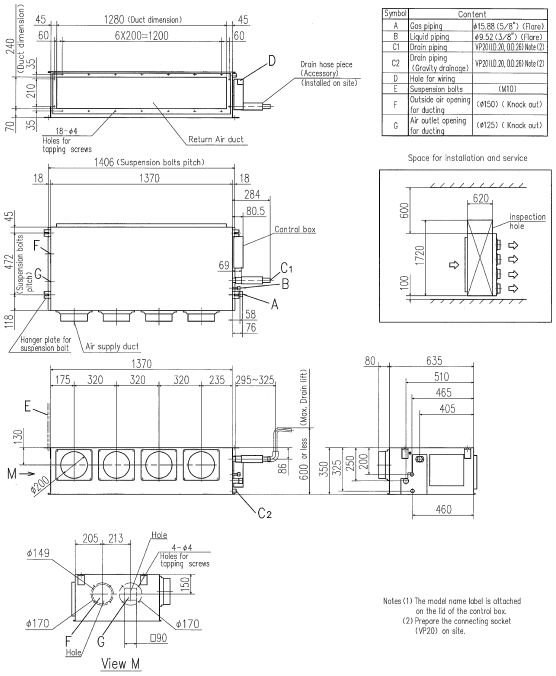



| Symbol | Content | | |
|---|---|---|---|
| | Model | FDUM60V | FDUM71V |
| A | Gas piping | ϕ12.7 (1/2") (Flare) | ϕ15.88 (5/8") (Flare) |
| B | Liquid piping | ϕ6.35 (1/4") (Flare) | ϕ9.52 (3/8") (Flare) |
| C1 | Drain piping | VP20(I.D.20, O.D.26) Note (2) | |
| C2 | Drain piping (Gravity drainage) | VP20(I.D.20, O.D.26) Note (2) | |
| D | Hole for wiring | | |
| E | Suspension bolts | (M10) | |
| F | Outside air opening for ducting | (ϕ150) (Knock out) | |
| G | Air outlet opening for ducting | (ϕ125) (Knock out) | |

Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

## Outline drawing(Unit:mm)

Models FDUM100V,125V,140V




| Symbol | Content | |
|---|---|---|
| A | Gas piping | ø15.88 (5/8") (Flare) |
| B | Liquid piping | ø9.52 (3/8") (Flare) |
| C1 | Drain piping | VP20(ID 20, OD 26) Note(2) |
| C2 | Drain piping (Gravity drainage) | VP20(ID 20, OD 26) Note(2) |
| D | Hole for wiring | |
| E | Suspension bolts | (M10) |
| F | Outside air opening for ducting | (ø150) ( Knock out) |
| G | Air outlet opening for ducting | (ø125) ( Knock out) |

Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

## SPECIFICATIONS The values are for simultaneous Multi operation.

| Set model name | | | | FDUM50ZIXV | FDUM60ZIXV | FDUM71VNV |
|---|---|---|---|---|---|---|
| Indoor name | | | | FDUM50V | FDUM60V | FDUM71V |
| Outdoor name | | | | SRC50ZIX-S | SRC60ZIX-S | FDC71VN |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | |
| Type | | | | Inverter | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 5.0 (2.2~5.6) | 5.6 (2.8~6.3) | 7.1 (3.2~8.0) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 5.4 (2.5~6.3) | 6.7 (3.1~7.1) | 8.0 (3.6~9.0) |
| Input | Cooling/Heating | | kW | 1.52/1.41 | 1.86/1.96 | 2.08/2.21 |
| COP | Cooling/Heating | | | 3.29/3.83 | 3.01/3.42 | 3.41/3.62 |
| Energy label | Cooling/Heating | | | A/A | B/B | A/A |
| Inrush current (Max. running current) | | | A | 5(14) | | 5(17) |
| Sound level*1 | Indoor | | dB(A) | Hi:34 Me:31 Lo:28 | | Hi:35 Me:32 Lo:29 |
| | Outdoor | | | 47 | 48 | |
| Air flow | Indoor | | CMM | Hi:14 Me:12 Lo:11 | Hi:18 Me:16 Lo:14 | Hi:20 Me:18 Lo:15 |
| | Outdoor | | | 40 | | Cooling:60 Heating:50 |
| Static pressure | 50Hz | | Pa | Standard:50, Max:85 | | |
| | 60Hz | | | Standard:40, Max:90 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | 299x750x635 | 299x950x635 | |
| Indoor unit: Net weight | | | kg | 34 | 40 | |
| Indoor unit: Air filter, Q'ty | | | | Procure locally | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-KIT3-E | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 640x800(+71)x290 | | 750x880(+88)x340 |
| Outdoor unit: Net weight | | | kg | 43 | | 60 |
| Outdoor unit: Type of compressor | | | | Scroll | | Rotary |
| Outdoor unit: Ref.control | | | | EEV | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 1.4(15) | | 2.95(30) |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 6.35/12.7 | | 9.52/15.88 |
| Range of usage: Ref.piping length | | | m | 30 | | 50 |
| Range of usage: Vertical height difference | O/U is higher | | m | 20 | | 30 |
| | O/U is lower | | m | 20 | | 15 |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | |
| | Heating | | O/U | -15~20 | | -10~20 |

## SPECIFICATIONS The values are for simultaneous Multi operation.

| Set model name | | | | FDUM100VNV | FDUM125VNV | FDUM140VNV | FDUM100VSV | FDUM125VSV | FDUM140VSV |
|---|---|---|---|---|---|---|---|---|---|
| Indoor name | | | | FDUM100V | FDUM125V | FDUM140V | FDUM100V | FDUM125V | FDUM140V |
| Outdoor name | | | | FDC100VN | FDC125VN | FDC140VN | FDC100VS | FDC125VS | FDC140VS |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | |
| Type | | | | Inverter | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | | kW | 50Hz:2.80/2.77 | 50Hz:4.03/3.80 | 50Hz:4.95/4.89 | 50Hz:2.80/2.77 | 50Hz:4.03/3.80 | 50Hz:4.95/4.89 |
| | | | | 60Hz:2.80/2.80 | 60Hz:4.03/3.85 | 60Hz:4.95/4.91 | 60Hz:2.80/2.80 | 60Hz:4.03/3.85 | 60Hz:4.95/4.91 |
| COP | Cooling/Heating | | | 50Hz:3.57/4.04 | 50Hz:3.10/3.68 | 50Hz:2.83/3.27 | 50Hz:3.57/4.04 | 50Hz:3.10/3.68 | 50Hz:2.83/3.27 |
| | | | | 60Hz:3.57/4.00 | 60Hz:3.10/3.64 | 60Hz:2.83/3.26 | 60Hz:3.57/4.00 | 60Hz:3.10/3.64 | 60Hz:2.83/3.26 |
| Energy label | Cooling/Heating | | | A/A | B/A | C/C | A/A | B/A | C/C |
| Inrush current (Max. running current) | | | A | 5(24) | | | 5(15) | | |
| Sound level*1 | Indoor | | dB(A) | Hi:37 Me:35 Lo:32 | Hi:38 Me:36 Lo:33 | | Hi:37 Me:35 Lo:32 | Hi:38 Me:36 Lo:33 | |
| | Outdoor | | | 49 | Cooling:50 Heating:51 | 51 | 49 | Cooling:50 Heating:51 | 51 |
| Air flow | Indoor | | CMM | Hi:28 Me:25 Lo:22 | Hi:34 Me:31 Lo:27 | | Hi:28 Me:25 Lo:22 | Hi:34 Me:31 Lo:27 | |
| | Outdoor | | | Cooling:75 Heating:73 | | | Cooling:75 Heating:73 | | |
| Static pressure | 50Hz | | Pa | Standard:60, Max:90 | Standard:60, Max:85 | | Standard:60, Max:90 | Standard:60, Max:85 | |
| | 60Hz | | | Standard:60, Max:100 | Standard:55, Max:100 | | Standard:60, Max:100 | Standard:55, Max:100 | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | 350x1,370x635 | | | | | |
| Indoor unit: Net weight | | | kg | 59 | | | | | |
| Indoor unit: Air filter, Q'ty | | | | Procure locally | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-KIT3-E | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 845x970x370 | | | | | |
| Outdoor unit: Net weight | | | kg | 74 | | | | | |
| Outdoor unit: Type of compressor | | | | Rotary | | | | | |
| Outdoor unit: Ref.control | | | | EEV | | | | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 3.8(30) | | | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/15.88 | | | | | |
| Range of usage: Ref.piping length | | | m | 50 | | | | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 30 | | | | | |
| | O/U is lower | | m | 15 | | | | | |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | | | | |
| | Heating | | O/U | -20~20 | | | | | |

The data are measured under the following conditions (ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

# INDOOR UNIT

## CEILING SUSPENDED

# FDEN

FDEN 40/50/60/71/100/125/140V

**Wired remote control**

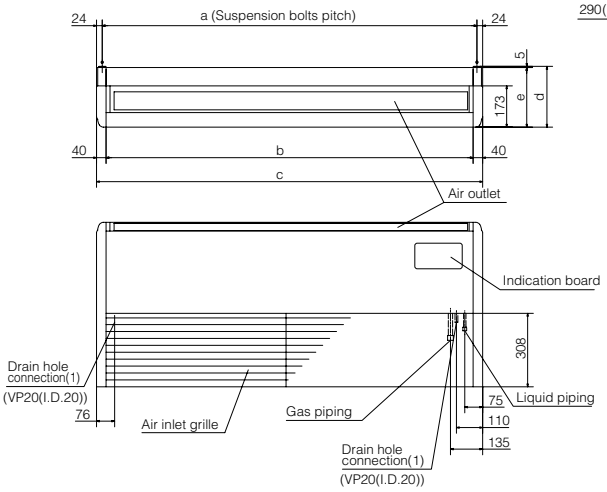
**RC-E3**
**(Option)**

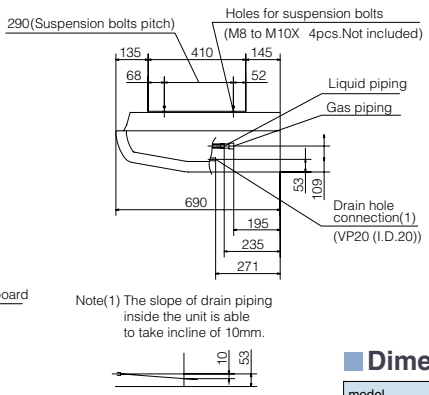
**RCH-E3**
**(Option)**

**Wireless remote control**

**RCN-E1R**
**(Option)**

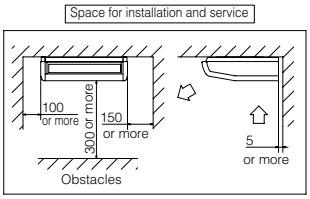
## Outline drawing (Unit:mm)




Note(1) The slope of drain piping inside the unit is able to take incline of 10mm.




### Dimension Table

| model | a | b | c | d | e |
|---|---|---|---|---|---|
| FDEN40,50 | 1022 | 990 | 1070 | 215 | 210 |
| FDEN60,71 | 1272 | 1240 | 1320 | 215 | 210 |
| FDEN100~140 | 1572 | 1540 | 1620 | 255 | 250 |

## Point 1 Improved installation workability

### Increased freedom of a piping layout

The refrigerant pipe from the unit can be arranged in three directions, rear, right and up. The drain pipe can be arranged in two directions, left and right. This will allow a free layout of piping for various installation conditions. The unit can only be serviced from the bottom.

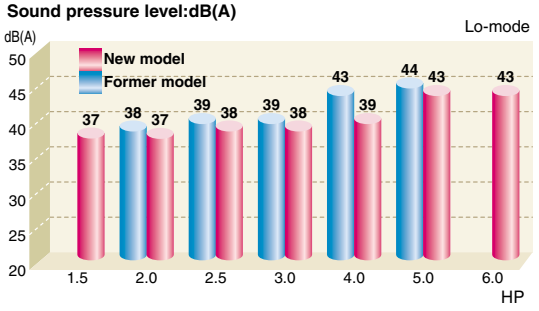
## Point 2 Compact and modern design

All models fit compactly on ceiling. (Height-210mm or 250mm).
Plain, modern design featuring rounded edges gives room a comfortable atmosphere.
FDEN40V, 50V weights 30kg the lightest level in the industry.
Convenient and quick installation.

## Point 3 New design --- Drastic-reduction of noise level

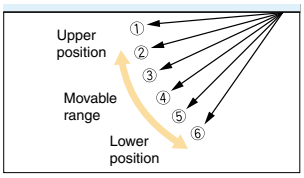
Reviewing sirocco fan (diameter and wide) enables drastic reduction of noise level.

**Sound pressure level:dB(A)**




## Point 4 Flap control system

Selection of louver position is possible. Louvers can be set at different angles.




## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDEN40ZIXV | FDEN50ZIXV | FDEN60ZIXV |
|---|---|---|---|---|---|---|
| Indoor name | | | | FDEN40V | FDEN50V | FDEN60V |
| Outdoor name | | | | SRC40ZIX-S | SRC50ZIX-S | SRC60ZIX-S |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | |
| Type | | | | Inverter | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 4.0 (1.8~4.7) | 5.0 (2.2~5.6) | 5.6 (2.8~6.3) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 4.5 (2.0~5.4) | 5.4 (2.5~6.3) | 6.7 (3.1~7.1) |
| Input | Cooling/Heating | | kW | 1.04/1.13 | 1.59/1.58 | 1.95/2.12 |
| COP | Cooling/Heating | | | 3.85/3.98 | 3.14/3.42 | 2.87/3.16 |
| Energy label | Cooling/Heating | | | A/A | B/B | C/D |
| Inrush current (Max. running current) | | | A | 5(12) | 5(14) | |
| Sound level*1 | Indoor | | dB(A) | Hi:39 Me:38 Lo:37 | | Hi:41 Me:39 Lo:38 |
| | Outdoor | | | 47 | | 48 |
| Air flow | Indoor | | CMM | Hi:11 Me:9 Lo:7 | | Hi:18 Me:14 Lo:12 |
| | Outdoor | | | 40 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | 210x1,070x690 | | 210x1,320x690 |
| Indoor unit: Net weight | | | kg | 30 | | 36 |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x2 (Washable) | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-E1R | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 640x800(+71)x290 | | |
| Outdoor unit: Net weight | | | kg | 43 | | |
| Outdoor unit: Type of compressor | | | | Scroll | | |
| Outdoor unit: Ref.control | | | | EEV | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 1.4(15) | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 6.35/12.7 | | |
| Range of usage: Ref.piping length | | | m | 30 | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 20 | | |
| | O/U is lower | | m | 20 | | |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | |
| | Heating | | O/U | -15~20 | | |

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDEN71VNV | FDEN100VNV | FDEN125VNV | FDEN140VNV | FDEN100VSV | FDEN125VSV | FDEN140VSV |
|---|---|---|---|---|---|---|---|---|---|---|
| Indoor name | | | | FDEN71V | FDEN100V | FDEN125V | FDEN140V | FDEN100V | FDEN125V | FDEN140V |
| Outdoor name | | | | FDC71VN | FDC100VN | FDC125VN | FDC140VN | FDC100VS | FDC125VS | FDC140VS |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | |
| Type | | | | Inverter | | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 7.1 (3.2~8.0) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 8.0 (3.6~9.0) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | | kW | 2.01/2.21 | 2.85/2.97 | 4.10/3.65 | 4.98/4.69 | 2.85/2.97 | 4.10/3.65 | 4.98/4.69 |
| COP | Cooling/Heating | | | 3.53/3.62 | 3.51/3.77 | 3.05/3.84 | 2.81/3.41 | 3.51/3.77 | 3.05/3.84 | 2.81/3.41 |
| Energy label | Cooling/Heating | | | A/A | A/A | B/A | C/B | A/A | B/A | C/B |
| Inrush current (Max. running current) | | | A | 5(17) | 5(24) | | | 5(15) | | |
| Sound level*1 | Indoor | | dB(A) | Hi:41 Me:39 Lo:38 | Hi:44 Me:41 Lo:39 | Hi:46 Me:44 Lo:43 | | Hi:44 Me:41 Lo:39 | Hi:46 Me:44 Lo:43 | |
| | Outdoor | | | 48 | 49 | Cooling:50 Heating:51 | 51 | 49 | Cooling:50 Heating:51 | 51 |
| Air flow | Indoor | | CMM | Hi:18 Me:14 Lo:12 | Hi:26 Me:23 Lo:21 | Hi:29 Me:26 Lo:23 | | Hi:26 Me:23 Lo:21 | Hi:29 Me:26 Lo:23 | |
| | Outdoor | | | Cooling:60 Heating:50 | Cooling:75 Heating:73 | | | Cooling:75 Heating:73 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | 210x1,320x690 | 250x1,620x690 | | | | | |
| Indoor unit: Net weight | | | kg | 36 | 46 | | | | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x2 (Washable) | | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-E1R | | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 750x880(+88)x340 | 845x970x370 | | | | | |
| Outdoor unit: Net weight | | | kg | 60 | 74 | | | | | |
| Outdoor unit: Type of compressor | | | | Rotary | | | | | | |
| Outdoor unit: Ref.control | | | | EEV | | | | | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 2.95(30) | 3.8(30) | | | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/15.88 | | | | | | |
| Range of usage: Ref.piping length | | | m | 50 | | | | | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 30 | | | | | | |
| | O/U is lower | | m | 15 | | | | | | |
| Operating temperature range | Cooling | | O/U | -15~43*2 | | | | | | |
| | Heating | | O/U | -10~20 | -20~20 | | | | | |

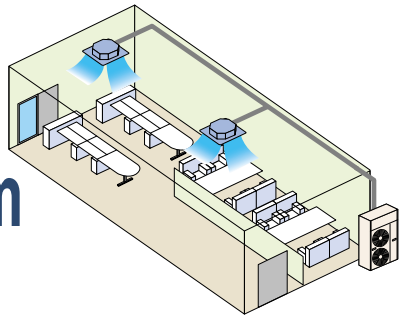
The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB.
Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.

*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.

*2 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

# MULTI SYSTEM

**Up to Four indoor units can be connected to a single outdoor unit and simultaneously operated with a single remote control.**



# Twin / Triple / Double Twin Multi System

**By referring to the following table for applicable indoor units, select the same models and capacities.**

## Applicable indoor units

| Model \ Capacity | 40 | 50 | 60 | 71 | 100 | 125 |
|---|---|---|---|---|---|---|
| 4way **FDT** | ● | ● | ● | ● | ● | ● |
| 4way compact (600 x 600mm) **FDTC** | ● | ● | | | | |
| Low/Middle Static pressure **FDUM** | | ● | ● | ● | ● | ● |
| Ceiling Suspended **FDE** | ● | ● | ● | ● | ● | ● |
| Wall Mounted NEW **SRK** Only used with outdoor units of Multi System | | ● | ● | | | |

## Combination of indoor units

| Outdoor Unit | FDC71VNV | FDC100VNV FDC100VSV | FDC125VNV FDC125VSV | FDC140VNV FDC140VSV | FDC200VSV | FDC250VSV |
|---|---|---|---|---|---|---|
| **Twin** | 40 + 40 | 50 + 50 | 60 + 60 | 71 + 71 | 100 + 100 | 125 + 125 |
| **Triple** | | | | 50 + 50 + 50 | 71 + 71 + 71 | |
| **Double Twin*** | | | | | 50+50+50+50 | 60+60+60+60 |

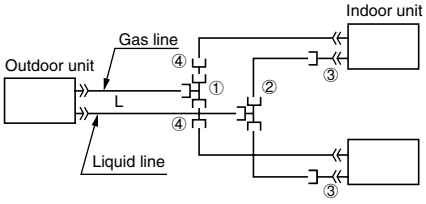
★FDT, FDTC and FDE models can be used in double twin system.

## Decision of piping specification

Diagrams below show the application as samples. For further information, refer to TECHNICAL MANUAL.

### Twin type

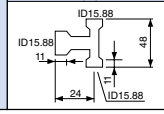
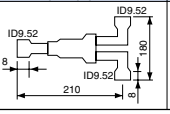
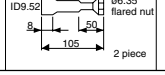
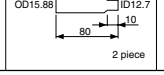
**Models FDC71~140 [Branch pipe set : DIS-WA1]**




**(Example)**

| Item / Model | Indoor unit combinations | Liquid pipe | | Gas pipe | |
|---|---|---|---|---|---|
| | | Main pipe | Branch pipe | Main pipe | Branch pipe |
| FDC71 | 40+40 | ø9.52Xt0.8 | ø9.52Xt0.8 | ø15.88Xt1.0 | ø12.7Xt0.8 |
| FDC100 | 50+50 | | | | |
| FDC125 | 60+60 | | | | ø15.88Xt1.0 |
| FDC140 | 71+71 | | | | |

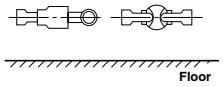
Notes (1) When 40-60 models of indoor units are applied to this combination, the reducer ③ supplied with the branch piping set should be used in order to reduce the liquid piping size from ø9.52mm to ø6.35mm at indoor unit side (flare connection). Accordingly be sure to select the liquid piping size ø9.52mm from branch to indoor unit.
(2) The reducer ④ is for FDC71 and 100 models only.

| Chart of shapes of branch piping parts (DIS-WA1) | Gas pipe | Symbol | Liquid pipe | Symbol | Reducer | Symbol | Reducer | Symbol |
|---|---|---|---|---|---|---|---|---|
| |  | ① |  | ② |  | ③ |  | ④ |

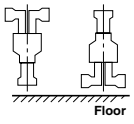
Notes (1) Symbol ① to ④ in the drawing shows the symbols of branch piping parts in the chart respectively.
(2) Branch piping should always be arranged to have level or perpendicular position.

**The branch piping (both gas and liquid lines) should always be arranged to have a level or perpendicular position.**

**2-Way Branch**

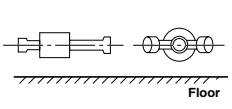


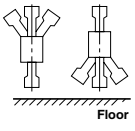

Mount —·— sections level with the floor.




Mount —·— sections perpendicular to the floor.

**3-Way Branch**

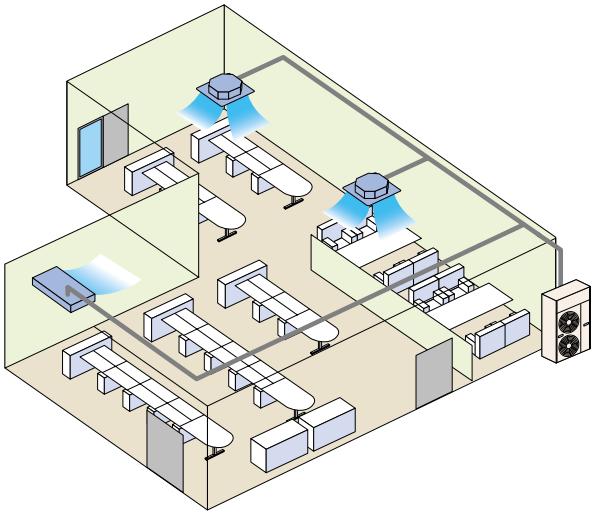


Ideal for the installation in large area and L-shaped rooms, the V Multi System has an extensive degree of flexibility in the selection of indoor units. Specifically, the selection of indoor units with different capacities in different types can be made.

# V Multi System

**Different models and capacities can be selected.**

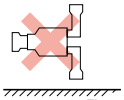


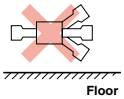
## Applicable indoor units

| Model \ Capacity | 40 | 50 | 60 | 71 | 100 | 125 |
|---|---|---|---|---|---|---|
| 4way **FDT** | ● | ● | ● | ● | ● | ● |
| Ceiling Suspended **FDE** | ● | ● | ● | ● | ● | ● |

## Combination of indoor units

| Outdoor Unit | FDC71VNV | FDC100VNV FDC100VSV |  FDC125VNV FDC125VSV |  FDC140VNV FDC140VSV | FDC200VSV | FDC250VSV |
|---|---|---|---|---|---|---|
| **Twin** | 40 + 40 | 50 + 50 | 60 + 60<br>50 + 71 | 71 + 71 | 100 + 100<br>71 + 125 | 125 + 125 |
| **Triple** | | | | 50 + 50 + 50 | 71 + 71 + 71 | 60 + 60 + 125<br>71 + 71 + 100 |
| **Double Twin** | | | | | 50+50+50+50 | 60+60+60+60 |

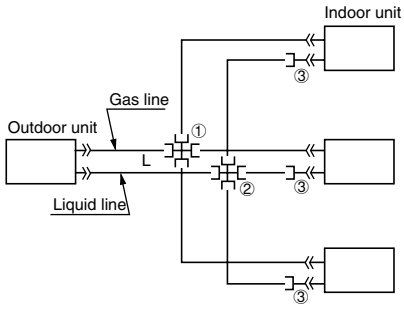



## Triple type

**The indoor_outdoor piping length differences among indoor units are less than 3m.**

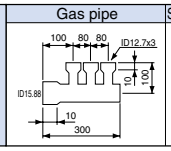
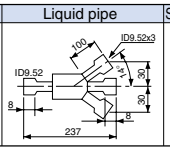
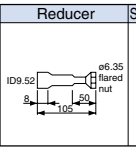
**Model FDC140 [Branch pipe set : DIS-TA1]**




**(Example)**

| Item / Model | Indoor unit combinations | Liquid pipe | | Gas pipe | |
|---|---|---|---|---|---|
| | | Main pipe | Branch pipe | Main pipe | Branch pipe |
| FDC140 | 50+50+50 | ø9.52Xt0.8 | ø9.52Xt0.8 | ø15.88Xt1.0 | ø12.7Xt0.8 |

Notes (1) The reducer ③ supplied with the branch piping set should be used in order to reduce the liquid piping size from ø9.52mm to ø6.35mm at indoor unit side (flare connection). Accordingly be sure to select the liquid piping size ø9.52mm from branch to indoor unit.

| Chart of shapes of branch piping parts (DIS-TA1) | Gas pipe | Symbol | Liquid pipe | Symbol | Reducer | Symbol |
|---|---|---|---|---|---|---|
| |  | ① |  | ② |  | ③ |

Notes (1) Symbol ① to ③ in the drawing shows the symbols of branch piping parts in the chart respectively.
(2) Branch piping should always be arranged to have level or perpendicular position.

# MULTI [ INDOOR UNIT ]

## WALL MOUNTED

# SRK

Only used with outdoor units of TWIN, TRIPLE MULTI System.

NEW

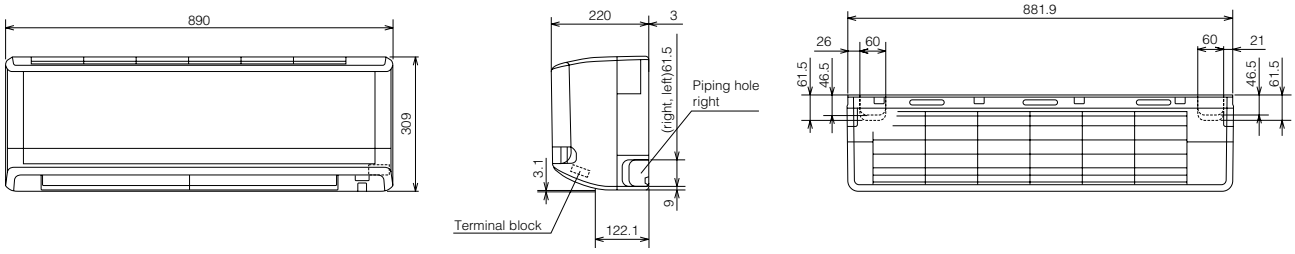
SRK 50/60ZIX-S

**Wired remote control**

RC-E3
(Option)

RCH-E3
(Option)

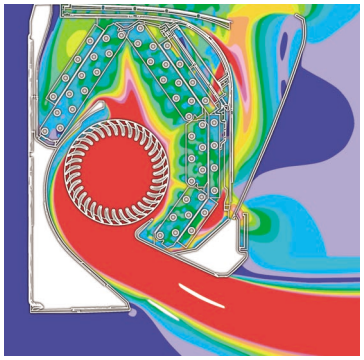
## Outline drawing (Unit:mm)




## Point 1 Jet Air Scroll

### We used the same aerodynamic analysis technology as used in developing jet engines.

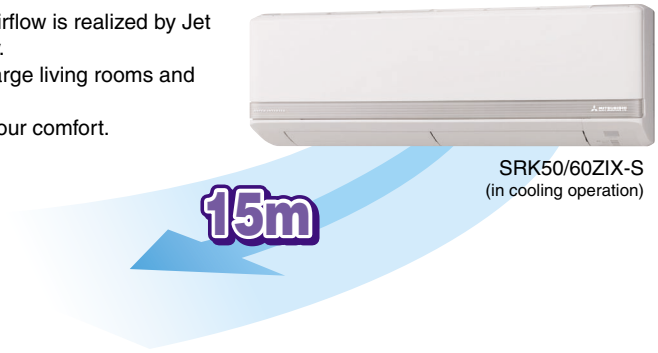
CFD (computational fluid dynamics), used in blade shape design of jet engines, has been applied to the design of air channels in air conditioners to develop the ideal air channel system (air circulation). The airflow of the jets created in this system enable a large volume of air to be blown with minimum power consumption, yet the air flow is uniform, quiet and reaches points a long distance from the blower.




Colors in the figure show the air speed.

## Point 2 Long Reach Air Flow

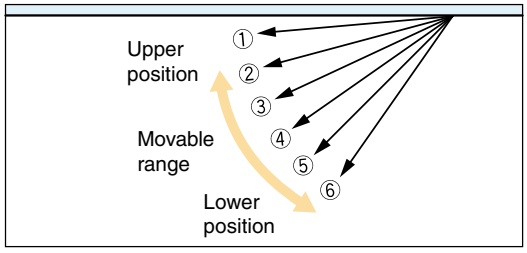
Powerful airflow is realized by Jet technology.
Good for large living rooms and shops.
Increase your comfort.



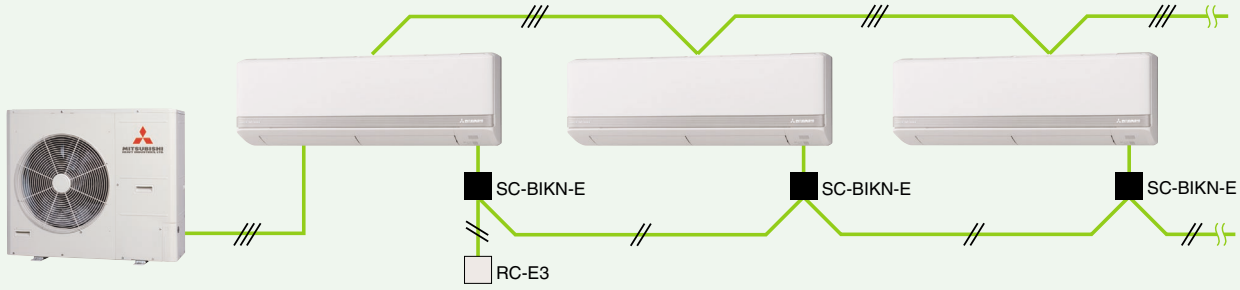

SRK50/60ZIX-S
(in cooling operation)

## Point 3 Flap control system

Selection of louver position is possible. Louvers can be set at different angles.




## Max four indoor units are connectable.




## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | SRK100VNPZIX | SRK125VNPZIX | SRK140VNTZIX | SRK100VSPZIX | SRK125VSPZIX | SRK140VSTZIX |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Twin | | Triple | Twin | | Triple |
| Indoor name | | | | SRK50ZIX-S | SRK60ZIX-S | SRK50ZIX-S | SRK50ZIX-S | SRK60ZIX-S | SRK50ZIX-S |
| Outdoor name | | | | FDC100VN | FDC125VN | FDC140VN | FDC100VS | FDC125VS | FDC140VS |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | |
| Type | | | | Inverter | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | | kW | 2.72/2.86 | 4.25/4.29 | 4.53/4.05 | 2.72/2.86 | 4.25/4.29 | 4.53/4.05 |
| COP | Cooling/Heating | | | 3.68/3.92 | 2.94/3.26 | 3.09/3.95 | 3.68/3.92 | 2.94/3.26 | 3.09/3.95 |
| Energy label | Cooling/Heating | | | A/A | C/C | B/A | A/A | C/C | B/A |
| Inrush current (Max. running current) | | | A | 5 (24) | | | 5 (15) | | |
| Sound level*1 | Indoor*2 | Cooling | dB(A) | Hi:45 Me:38 Lo:26 | Hi:47 Me:38 Lo:26 | Hi:45 Me:38 Lo:26 | Hi:45 Me:38 Lo:26 | Hi:47 Me:38 Lo:26 | Hi:45 Me:38 Lo:26 |
| | | Heating | | Hi:45 Me:38 Lo:32 | Hi:45 Me:39 Lo:33 | Hi:45 Me:38 Lo:32 | Hi:45 Me:38 Lo:32 | Hi:45 Me:39 Lo:33 | Hi:45 Me:38 Lo:32 |
| | Outdoor | | | 49 | Cooling:50,Heating:51 | 51 | 49 | Cooling:50,Heating:51 | 51 |
| Air flow | Indoor*2 | Cooling | CMM | Hi:13.5 Me:11 Lo:8 | Hi:14.5 Me:12.5 Lo:8.5 | Hi:13.5 Me:11 Lo:8 | Hi:13.5 Me:11 Lo:8 | Hi:14.5 Me:12.5 Lo:8.5 | Hi:13.5 Me:11 Lo:8 |
| | | Heating | | Hi:16.5 Me:14.5 Lo:10.5 | Hi:17 Me:15 Lo:11 | Hi:16.5 Me:14.5 Lo:10.5 | Hi:16.5 Me:14.5 Lo:10.5 | Hi:17 Me:15 Lo:11 | Hi:16.5 Me:14.5 Lo:10.5 |
| | Outdoor | | | Cooling:75,Heating:73 | | | | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | 309x890x220 | | | | | |
| Indoor unit: Net weight | | | kg | 15 | | | | | |
| Indoor unit: Air filter, Q'ty | | | | Polypropylene net x 2 (Washable) | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 & Interface kit:SC-BIKN-E | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 845x970x370 | | | | | |
| Outdoor unit: Net weight | | | kg | 74 | | | | | |
| Outdoor unit: Ref.control | | | | EEV | | | | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 3.8(30m) | | | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/15.88 | | | | | |
| Range of usage: Ref.piping length | | | m | 50 | | | | | |
| Range of usage: Vertical height difference | O/U is higher | | m | 30 | | | | | |
| Range of usage: Vertical height difference | O/U is lower | | m | 15 | | | | | |
| Operating temperature range | Cooling | | O/U | -15~43*3 | | | | | |
| Operating temperature range | Heating | | O/U | -20~20 | | | | | |

The data are measured under the following conditions (ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB.
Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : The values are for one indoor unit operation.
*3 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

## CEILING CASSETTE -4way-

# FDT

**FDT 40/50/60/ 71/100/125V**

A CLASS

R410A

**Wired remote control**

**RC-E3** (Option)

**RCH-E3** (Option)

**Wireless remote control**

**RCN-T-36W-E** (Option)

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDT71VNPV | FDT100VNPV | FDT125VNPV | FDT140VNPV | FDT140VNTV | FDT100VSPV | FDT125VSPV | FDT140VSPV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Twin | | | | Triple | Twin | | |
| Indoor name | | | | FDT40V | FDT50V | FDT60V | FDT71V | FDT50V | FDT50V | FDT60V | FDT71V |
| Outdoor name | | | | FDC71VN | FDC100VN | FDC125VN | FDC140VN | FDC140VN | FDC100VS | FDC125VS | FDC140VS |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | |
| Type | | | | Inverter | | | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | kW | | 7.1 (3.2~8.0) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 14.0 (5.0~14.5) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | kW | | 8.0 (3.6~9.0) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 16.0 (4.0~16.5) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | kW | | 1.85/1.99 | 2.94/3.09 | 3.95/3.70 | 4.51/4.58 | 4.65/4.63 | 2.94/3.09 | 3.95/3.70 | 4.51/4.58 |
| COP | Cooling/Heating | | | 3.84/4.02 | 3.40/3.62 | 3.16/3.78 | 3.10/3.49 | 3.01/3.46 | 3.40/3.62 | 3.16/3.78 | 3.10/3.49 |
| Energy label | Cooling/Heating | | | A/A | A/A | B/A | B/B | B/B | A/A | B/A | B/B |
| Inrush current (Max. running current) | | A | | 5(17) | 5(24) | | | | 5(15) | | |
| Sound level*1 | Indoor*2 | dB(A) | | Hi:33 Me:31 Lo:30 | | | Hi:35 Me:33 Lo:31 | Hi:33 Me:31 Lo:30 | Hi:33 Me:31 Lo:30 | | Hi:35 Me:33 Lo:31 |
| | Outdoor | | | 48 | 49 | Cooling:50 Heating:51 | 51 | 51 | 49 | Cooling:50 Heating:51 | 51 |
| Air flow | Indoor*2 | CMM | | Hi:18 Me:16 Lo:14 | | | Hi:21 Me:19 Lo:17 | Hi:18 Me:16 Lo:14 | Hi:18 Me:16 Lo:14 | | Hi:21 Me:19 Lo:17 |
| | Outdoor | | | Cooling:60 Heating:50 | Cooling:75 Heating:73 | | | | | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | mm | | Unit:246x840x840 Panel:35x950x950 | | | | | | | |
| Indoor unit: Net weight | Unit+Panel | kg | | 27.5(22+5.5) | | 29.5(24+5.5) | | 27.5(22+5.5) | | 29.5(24+5.5) | |
| Indoor unit: Panel | | | | T-PSA-36W-E | | | | | | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x1 (Washable) | | | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-T-36W-E | | | | | | | |
| Outdoor unit: Exterior dimensions | | | | 750x880(+88)x340 | 845x970x370 | | | | | | |
| Outdoor unit: Net weight | | kg | | 60 | 74 | | | | | | |
| Outdoor unit: Ref.control | | | | EEV | | | | | | | |
| Outdoor unit: Ref.amount precharged | | kg(m) | | 2.95(30) | 3.8(30) | | | | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | ø | | 9.52/15.88 | | | | | | | |
| Range of usage: Ref.piping length | | m | | 50 | | | | | | | |
| Range of usage: Vertical height difference | O/U is higher | m | | 30 | | | | | | | |
| Range of usage: Vertical height difference | O/U is lower | m | | 15 | | | | | | | |
| Operating temperature range | Cooling | O/U | | -15~43*3 | | | | | | | |
| Operating temperature range | Heating | O/U | | -10~20 | -20~20 | | | | | | |

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDT200VSPV | FDT250VSPV | FDT140VSTV | FDT200VSTV | FDT200VSDV | FDT250VSDV |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Twin | | Triple | | Double Twin | |
| Indoor name | | | | FDT100V | FDT125V | FDT50V | FDT71V | FDT50V | FDT60V |
| Outdoor name | | | | FDC200VS | FDC250VS | FDC140VS | FDC200VS | FDC200VS | FDC250VS |
| Power source | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | | | | |
| Type | | | | Inverter | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | kW | | 20.0 (7.0~22.4) | 25.0 (10.0~28.0) | 14.0 (5.0~14.5) | 20.0 (7.0~22.4) | 20.0 (7.0~22.4) | 25.0 (10.0~28.0) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | kW | | 22.4 (7.6~25.0) | 28.0 (9.5~31.5) | 16.0 (4.0~16.5) | 22.4 (7.6~25.0) | 22.4 (7.6~25.0) | 28.0 (9.5~31.5) |
| Input | Cooling/Heating | kW | | 6.58/6.02 | 8.30/7.75 | 4.65/4.63 | 6.49/6.12 | 6.58/6.15 | 8.28/7.70 |
| COP | Cooling/Heating | | | 3.04/3.72 | 3.01/3.61 | 3.01/3.46 | 3.08/3.66 | 3.04/3.64 | 3.02/3.64 |
| Energy label | Cooling/Heating | | | B/A | B/A | B/B | B/A | B/A | B/A |
| Inrush current (Max. running current) | | A | | 5(19) | 5(22) | 5(15) | 5(19) | 5(19) | 5(22) |
| Sound level*1 | Indoor*2 | dB(A) | | Hi:40 Me:37 Lo:35 | Hi:42 Me:40 Lo:37 | Hi:33 Me:31 Lo:30 | Hi:35 Me:33 Lo:31 | Hi:33 Me:31 Lo:30 | |
| | Outdoor | | | 57 | Cooling:57 Heating:58 | 51 | 57 | 57 | Cooling:57 Heating:58 |
| Air flow | Indoor*2 | CMM | | Hi:27 Me:24 Lo:20 | Hi:30 Me:27 Lo:23 | Hi:18 Me:16 Lo:14 | Hi:21 Me:19 Lo:17 | Hi:18 Me:16 Lo:14 | |
| | Outdoor | | | Cooling:150 Heating:145 | | Cooling:75 Heating:73 | Cooling:150 Heating:145 | Cooling:150 Heating:145 | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | mm | | Unit:298x840x840 Panel:35x950x950 | | | Unit:246x840x840 Panel:35x950x950 | | |
| Indoor unit: Net weight | Unit+Panel | kg | | 32.5(27+5.5) | | 27.5(22+5.5) | 29.5(24+5.5) | 27.5(22+5.5) | 29.5(24+5.5) |
| Indoor unit: Panel | | | | T-PSA-36W-E | | | | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x1 (Washable) | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-T-36W-E | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | mm | | 1,300x970x370 | 1,505x970x370 | 845x970x370 | 1,300x970x370 | | 1,505x970x370 |
| Outdoor unit: Net weight | | kg | | 122 | 140 | 74 | 122 | | 140 |
| Outdoor unit: Ref.control | | | | EEV | | | | | |
| Outdoor unit: Ref.amount precharged | | kg(m) | | 5.4(30) | 7.2(30) | 3.8(30) | 5.4(30) | | 7.2(30) |
| Outdoor unit: Ref.piping size | Liquid/Gas | ø | | 9.52/22.22 | 12.7/22.22 | 9.52/15.88 | 9.52/22.22 | | 12.7/22.22 |
| Range of usage: Ref.piping length | | m | | 70 | | 50 | 70 | 70 | |
| Range of usage: Vertical height difference | O/U is higher | m | | 30 | | | | | |
| Range of usage: Vertical height difference | O/U is lower | m | | 15 | | | | | |
| Operating temperature range | Cooling | O/U | | -15~43*3 | | | | | |
| Operating temperature range | Heating | O/U | | -15~20 | | -20~20 | -15~20 | | |

The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : The values are for one indoor unit operation.
*3 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

## CEILING CASSETTE -4way Compact (600 X 600mm)-

# FDTC

**FDTC 40/50V/60VB**

A CLASS

R410A

**Wired remote control**

**RC-E3** (Option)

**RCH-E3** (Option)

**Wireless remote control**

**RCN-TC-24W-ER** (Option)

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDTC71VNPVB | FDTC100VNPVB | FDTC125VNPVB | FDTC140VNTVB |
|---|---|---|---|---|---|---|---|
| | | | | Twin | | | Triple |
| Indoor name | | | | FDTC40VB | FDTC50VB | FDTC60VB | FDTC50VB |
| Outdoor name | | | | FDC71VN | FDC100VN | FDC125VN | FDC140VN |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | |
| Type | | | | **Inverter** | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 7.1 (3.2~8.0) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 8.0 (3.6~9.0) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | | kW | 1.91/2.08 | 2.84/3.08 | 5.35/4.62 | 4.64/4.52 |
| COP | Cooling/Heating | | | 3.72/3.85 | 3.52/3.64 | 2.34/3.03 | 3.02/3.54 |
| Energy label | Cooling/Heating | | | A/A | A/A | F/D | B/B |
| Inrush current (Max. running current) | | | A | 5(17) | 5(24) | 5(27) | 5(24) |
| Sound level*1 | Indoor*2 | | dB(A) | Cooling: Hi:42 Me:36 Lo:30 Heating: Hi:42 Me:36 Lo:32 | | Cooling: Hi:46 Me:39 Lo:30 Heating: Hi:46 Me:39 Lo:32 | Cooling: Hi:42 Me:36 Lo:30 Heating: Hi:42 Me:36 Lo:32 |
| | Outdoor | | | 48 | 49 | Cooling:50 Heating:51 | 51 |
| Air flow | Indoor*2 | | CMM | Cooling: Hi:11.5 Me:9 Lo:7 Heating: Hi:11.5 Me:9 Lo:8 | | Cooling: Hi:13.5 Me:10 Lo:7 Heating: Hi:13.5 Me:10 Lo:8 | Cooling: Hi:11.5 Me:9 Lo:7 Heating: Hi:11.5 Me:9 Lo:8 |
| | Outdoor | | | Cooling:60 Heating:50 | Cooling:75 Heating:73 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | Unit:248x570x570 Panel:35x700x700 | | | |
| Indoor unit: Net weight | Unit+Panel | | kg | 18.5(15+3.5) | | | |
| Indoor unit: Panel | | | | TC-PSA-25W-E | | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x1 (Washable) | | | |
| Indoor unit: Remote control(option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-TC-24W-ER | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 750x880(+88)x340 | 845x970x370 | | |
| Outdoor unit: Net weight | | | kg | 60 | 74 | | |
| Outdoor unit: Ref.control | | | | EEV | | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 2.95(30) | 3.8(30) | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/15.88 | | | |
| Range of usage: Ref.piping length | | | m | 50 | | | |
| Range of usage: Vertical height difference | between O/U | | m | 30 | | | |
| Range of usage: Vertical height difference | and I/U | | m | 15 | | | |
| Operating temperature range | Cooling | | O/U | -15~43*3 | | | |
| Operating temperature range | Heating | | O/U | -10~20 | -20~20 | | |

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDTC100VSPVB | FDTC125VSPVB | FDTC140VSTVB | FDTC200VSDVB | FDTC250VSDVB |
|---|---|---|---|---|---|---|---|---|
| | | | | Twin | | Triple | Double Twin | |
| Indoor name | | | | FDTC50VB | FDTC60VB | FDTC50VB | FDTC50VB | FDTC60VB |
| Outdoor name | | | | FDC100VS | FDC125VS | FDC140VS | FDC200VS | FDC250VS |
| Power source | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | | | |
| Type | | | | **Inverter** | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | | kW | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 20.0 (7.0~22.4) | 25.0 (10.0~28.0) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | | kW | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 22.4 (7.6~25.0) | 28.0 (9.5~31.5) |
| Input | Cooling/Heating | | kW | 2.84/3.08 | 5.35/4.62 | 4.64/4.52 | 7.33/6.98 | 11.28/10.19 |
| COP | Cooling/Heating | | | 3.52/3.64 | 2.34/3.03 | 3.02/3.54 | 2.73/3.21 | 2.22/2.75 |
| Energy label | Cooling/Heating | | | A/A | F/D | B/B | D/C | F/E |
| Inrush current (Max. running current) | | | A | 5(15) | | | 5(19) | 5(22) |
| Sound level*1 | Indoor*2 | | dB(A) | Cooling: Hi:42 Me:36 Lo:30 Heating: Hi:42 Me:36 Lo:32 | Cooling: Hi:46 Me:39 Lo:30 Heating: Hi:46 Me:39 Lo:32 | Cooling: Hi:42 Me:36 Lo:30 Heating: Hi:42 Me:36 Lo:32 | Cooling: Hi:42 Me:36 Lo:30 Heating: Hi:42 Me:36 Lo:32 | Cooling: Hi:46 Me:39 Lo:30 Heating: Hi:46 Me:39 Lo:32 |
| | Outdoor | | | 49 | Cooling:50 Heating:51 | 51 | 57 | Cooling:57 Heating:58 |
| Air flow | Indoor*2 | | CMM | Cooling: Hi:11.5 Me:9 Lo:7 Heating: Hi:11.5 Me:9 Lo:8 | Cooling: Hi:13.5 Me:10 Lo:7 Heating: Hi:13.5 Me:10 Lo:8 | Cooling: Hi:11.5 Me:9 Lo:7 Heating: Hi:11.5 Me:9 Lo:8 | Cooling: Hi:11.5 Me:9 Lo:7 Heating: Hi:11.5 Me:9 Lo:8 | Cooling: Hi:13.5 Me:10 Lo:7 Heating: Hi:13.5 Me:10 Lo:8 |
| | Outdoor | | | Cooling:75 Heating:73 | | | Cooling:150 Heating:145 | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | | mm | Unit:248x570x570 Panel:35x700x700 | | | | |
| Indoor unit: Net weight | Unit+Panel | | kg | 18.5(15+3.5) | | | | |
| Indoor unit: Panel | | | | TC-PSA-25W-E | | | | |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x1 (Washable) | | | | |
| Indoor unit: Remote control(option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-TC-24W-ER | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | | mm | 845x970x370 | | | 1,300x970x370 | 1,505x970x370 |
| Outdoor unit: Net weight | | | kg | 74 | | | 122 | 140 |
| Outdoor unit: Ref.control | | | | EEV | | | | |
| Outdoor unit: Ref.amount precharged | | | kg(m) | 3.8(30) | | | 5.4(30) | 7.2(30) |
| Outdoor unit: Ref.piping size | Liquid/Gas | | ø | 9.52/15.88 | | | 9.52/22.22 | 12.7/22.22 |
| Range of usage: Ref.piping length | | | m | 50 | | | 70 | |
| Range of usage: Vertical height difference | between O/U | | m | 30 | | | | |
| Range of usage: Vertical height difference | and I/U | | m | 15 | | | | |
| Operating temperature range | Cooling | | O/U | -15~43*3 | | | | |
| Operating temperature range | Heating | | O/U | -20~20 | | | -15~20 | |

The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : The values are for one indoor unit operation.
*3 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

## DUCT CONNECTED -Low/Middle Static pressure-

# FDUM

**FDUM 50/60/71/100/125V**

A CLASS

R410A

**Wired remote control**

**RC-E3** (Option)

**RCH-E3** (Option)

**Wireless remote control**

**RCN-KIT3-E** (Option)

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDUM100VNPV | FDUM125VNPV | FDUM140VNPV | FDUM140VNTV |
|---|---|---|---|---|---|---|---|
| | | | | Twin | | | Triple |
| Indoor name | | | | FDUM50V | FDUM60V | FDUM71V | FDUM50V |
| Outdoor name | | | | FDC100VN | FDC125VN | FDC140VN | FDC140VN |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | |
| Type | | | | **Inverter** | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | kW | | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 14.0 (5.0~14.5) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | kW | | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 16.0 (4.0~16.5) |
| Input | Cooling/Heating | kW | | 3.12/3.27 | 4.47/4.51 | 50Hz:5.00/4.94 60Hz:5.00/4.80 | 50Hz:5.09/5.03 60Hz:5.09/4.89 |
| COP | Cooling/Heating | | | 3.21/3.43 | 2.80/3.10 | 50Hz:2.80/3.24 60Hz:2.80/3.33 | 50Hz:2.75/3.18 60Hz:2.75/3.27 |
| Energy label | Cooling/Heating | | | A/B | D/B | D/C | 50Hz:D/D 60Hz:D/C |
| Inrush current (Max. running current) | | A | | 5(24) | | | |
| Sound level*1 | Indoor*2 | dB(A) | | Hi:34 Me:31 Lo:28 | | Hi:35 Me:32 Lo:29 | Hi:34 Me:31 Lo:28 |
| | Outdoor | | | 49 | Cooling:50 Heating:51 | 51 | 51 |
| Air flow | Indoor*2 | CMM | | Hi:14 Me:12 Lo:11 | Hi:18 Me:16 Lo:14 | Hi:20 Me:18 Lo:15 | Hi:14 Me:12 Lo:11 |
| | Outdoor | | | Cooling:75 Heating:73 | | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | mm | | 299x750x635 | 299x950x635 | | 299x750x635 |
| Indoor unit: Net weight | | kg | | 34 | 40 | | 34 |
| Indoor unit: Air filter, Q'ty | | | | Procure locally | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-KIT3-E | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | mm | | 845x970x370 | | | |
| Outdoor unit: Net weight | | kg | | 74 | | | |
| Outdoor unit: Ref.control | | | | EEV | | | |
| Outdoor unit: Ref.amount precharged | | kg(m) | | 3.8(30) | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | ø | | 9.52/15.88 | | | |
| Range of usage: Ref.piping length | | m | | 50 | | | |
| Range of usage: Vertical height difference | O/U is higher | m | | 30 | | | |
| Range of usage: Vertical height difference | O/U is lower | m | | 15 | | | |
| Operating temperature range | Cooling | O/U | | -15~43*3 | | | |
| Operating temperature range | Heating | O/U | | -20~20 | | | |

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDUM100VSPV | FDUM125VSPV | FDUM140VSPV | FDUM200VSPV | FDUM250VSPV | FDUM140VSTV | FDUM200VSTV |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Twin | | | | | Triple | |
| Indoor name | | | | FDUM50V | FDUM60V | FDUM71V | FDUM100V | FDUM125V | FDUM50V | FDUM71V |
| Outdoor name | | | | FDC100VS | FDC125VS | FDC140VS | FDC200VS | FDC250VS | FDC140VS | FDC200VS |
| Power source | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | | | | | |
| Type | | | | **Inverter** | | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | kW | | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 20.0 (7.0~22.4) | 25.0 (10.0~28.0) | 14.0 (5.0~14.5) | 20.0 (7.0~22.4) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | kW | | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 22.4 (7.6~25.0) | 28.0 (9.5~31.5) | 16.0 (4.0~16.5) | 22.4 (7.6~25.0) |
| Input | Cooling/Heating | kW | | 3.12/3.27 | 4.47/4.51 | 50Hz:5.00/4.94 60Hz:5.00/4.80 | 6.86/6.72 | 9.31/8.35 | 50Hz:5.09/5.03 60Hz:5.09/4.89 | 6.88/6.74 |
| COP | Cooling/Heating | | | 3.21/3.43 | 2.80/3.10 | 50Hz:2.80/3.24 60Hz:2.80/3.33 | 2.92/3.33 | 2.69/3.35 | 50Hz:2.75/3.18 60Hz:2.75/3.27 | 2.91/3.32 |
| Energy label | Cooling/Heating | | | A/B | D/B | D/C | C/C | D/C | 50Hz:D/D 60Hz:D/C | C/C |
| Inrush current (Max. running current) | | A | | 5(15) | | | 5(19) | 5(22) | 5(15) | 5(19) |
| Sound level*1 | Indoor*2 | dB(A) | | Hi:34 Me:31 Lo:28 | | Hi:35 Me:32 Lo:29 | Hi:37 Me:35 Lo:32 | Hi:38 Me:36 Lo:33 | Hi:34 Me:31 Lo:28 | Hi:35 Me:32 Lo:29 |
| | Outdoor | | | 49 | Cooling:50 Heating:51 | 51 | 57 | Cooling:57 Heating:58 | 51 | 57 |
| Air flow | Indoor*2 | CMM | | Hi:14 Me:12 Lo:11 | Hi:18 Me:16 Lo:14 | Hi:20 Me:18 Lo:15 | Hi:28 Me:25 Lo:22 | Hi:34 Me:31 Lo:27 | Hi:14 Me:12 Lo:11 | Hi:20 Me:18 Lo:15 |
| | Outdoor | | | Cooling:75 Heating:73 | | | Cooling:150 Heating:145 | | Cooling:75 Heating:73 | Cooling:150 Heating:145 |
| Indoor unit: Exterior dimensions | Height x Width x Depth | mm | | 299x750x635 | 299x950x635 | | 350x1,370x635 | | 299x750x635 | 1,300x970x370 |
| Indoor unit: Net weight | | kg | | 34 | 40 | | 59 | | 34 | 40 |
| Indoor unit: Air filter, Q'ty | | | | Procure locally | | | | | | |
| Indoor unit: Remote control (Option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-KIT3-E | | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | mm | | 845x970x370 | | | 1,300x970x370 | 1,505x970x370 | 845x970x370 | 1,300x970x370 |
| Outdoor unit: Net weight | | kg | | 74 | | | 122 | 140 | 74 | 122 |
| Outdoor unit: Ref.control | | | | EEV | | | | | | |
| Outdoor unit: Ref.amount precharged | | kg(m) | | 3.8(30) | | | 5.4(30) | 7.2(30) | 3.8(30) | 5.4(30) |
| Outdoor unit: Ref.piping size | Liquid/Gas | ø | | 9.52/15.88 | | | 9.52/22.22 | 12.7/22.22 | 9.52/15.88 | 9.52/22.22 |
| Range of usage: Ref.piping length | | m | | 50 | | | 70 | | 50 | 70 |
| Range of usage: Vertical height difference | O/U is higher | m | | 30 | | | | | | |
| Range of usage: Vertical height difference | O/U is lower | m | | 15 | | | | | | |
| Operating temperature range | Cooling | O/U | | -15~43*3 | | | | | | |
| Operating temperature range | Heating | O/U | | -20~20 | | | -15~20 | | -20~20 | -15~20 |

The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : The values are for one indoor unit operation.
*3 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

## CEILING SUSPENDED

# FDEN

**FDEN 40/50/60/71/100/125V**

**Wired remote control**

**RC-E3** (Option)

**RCH-E3** (Option)

**Wireless remote control**

**RCN-E1R** (Option)

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDEN71VNPV | FDEN100VNPV | FDEN125VNPV | FDEN140VNPV | FDEN140VNTV | FDEN100VSPV | FDEN125VSPV |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Twin | | | | Triple | Twin | |
| Indoor name | | | | FDEN40V | FDEN50V | FDEN60V | FDEN71V | FDEN50V | FDEN50V | FDEN60V |
| Outdoor name | | | | FDC71VN | FDC100VN | FDC125VN | FDC140VN | FDC140VN | FDC100VS | FDC125VS |
| Power source | | | | 1Phase 220-240V 50Hz, 1Phase 220V 60Hz | | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | |
| Type | | | | **Inverter** | | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | kW | | 7.1 (3.2~8.0) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) | 14.0 (5.0~14.5) | 14.0 (5.0~14.5) | 10.0 (4.0~11.2) | 12.5 (5.0~14.0) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | kW | | 8.0 (3.6~9.0) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) | 16.0 (4.0~16.5) | 16.0 (4.0~16.5) | 11.2 (4.0~12.5) | 14.0 (4.0~16.0) |
| Input | Cooling/Heating | kW | | 1.74/1.84 | 2.78/2.94 | 4.23/3.83 | 4.87/4.59 | 4.88/4.58 | 2.78/2.94 | 4.23/3.83 |
| COP | Cooling/Heating | | | 4.08/4.35 | 3.60/3.81 | 2.96/3.66 | 2.87/3.49 | 2.87/3.49 | 3.60/3.81 | 2.96/3.66 |
| Energy label | Cooling/Heating | | | A/A | A/A | C/A | C/B | C/B | A/A | C/A |
| Inrush current (Max. running current) | | A | | 5(17) | 5(24) | | | | 5(15) | |
| Sound level*1 | Indoor*2 | dB(A) | | Hi:39 Me:38 Lo:37 | | Hi:41 Me:39 Lo:38 | | Hi:39 Me:38 Lo:37 | | Hi:41 Me:39 Lo:38 |
| | Outdoor | | | 48 | 49 | Cooling:50 Heating:51 | 51 | | 49 | Cooling:50 Heating:51 |
| Air flow | Indoor*2 | CMM | | Hi:11 Me:9 Lo:7 | | Hi:18 Me:14 Lo:12 | | Hi:11 Me:9 Lo:7 | | Hi:18 Me:14 Lo:12 |
| | Outdoor | | | Cooling:60 Heating:50 | Cooling:75 Heating:73 | | | | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | mm | | 210x1,070x690 | | 210x1,320x690 | | 210x1,070x690 | | 210x1,320x690 |
| Indoor unit: Net weight | | kg | | 30 | | 36 | | 30 | | 36 |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x2 (Washable) | | | | | | |
| Indoor unit: Remote control(option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-E1R | | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | mm | | 750x880(+88)x340 | 845x970x370 | | | | | |
| Outdoor unit: Net weight | | kg | | 60 | 74 | | | | | |
| Outdoor unit: Ref.control | | | | EEV | | | | | | |
| Outdoor unit: Ref.amount precharged | | kg(m) | | 2.95(30) | 3.8(30) | | | | | |
| Outdoor unit: Ref.piping size | Liquid/Gas | ø | | 9.52/15.88 | | | | | | |
| Range of usage: Ref.piping length | | m | | 50 | | | | | | |
| Range of usage: Vertical height difference | O/U is higher | m | | 30 | | | | | | |
| Range of usage: Vertical height difference | O/U is lower | m | | 15 | | | | | | |
| Operating temperature range | Cooling | O/U | | -15~43*3 | | | | | | |
| Operating temperature range | Heating | O/U | | -10~20 | -20~20 | | | | | |

## SPECIFICATIONS

The values are for simultaneous Multi operation.

| Set model name | | | | FDEN140VSPV | FDEN200VSPV | FDEN250VSPV | FDEN140VSTV | FDEN200VSTV | FDEN200VSDV | FDEN250VSDV |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Twin | | | Triple | | Double Twin | |
| Indoor name | | | | FDEN71V | FDEN100V | FDEN125V | FDEN50V | FDEN71V | FDEN50V | FDEN60V |
| Outdoor name | | | | FDC140VS | FDC200VS | FDC250VS | FDC140VS | FDC200VS | FDC200VS | FDC250VS |
| Power source | | | | 3Phase 380-415V 50Hz, 3Phase 380V 60Hz | | | | | | |
| Type | | | | **Inverter** | | | | | | |
| Nominal cooling capacity (Min~Max) | ISO-T1(JIS) | kW | | 14.0 (5.0~14.5) | 20.0 (7.0~22.4) | 25.0 (10.0~28.0) | 14.0 (5.0~14.5) | 20.0 (7.0~22.4) | 20.0 (7.0~22.4) | 25.0 (10.0~28.0) |
| Nominal heating capacity (Min~Max) | ISO-T1(JIS) | kW | | 16.0 (4.0~16.5) | 22.4 (7.6~25.0) | 28.0 (9.5~31.5) | 16.0 (4.0~16.5) | 22.4 (7.6~25.0) | 22.4 (7.6~25.0) | 28.0 (9.5~31.5) |
| Input | Cooling/Heating | kW | | 4.87/4.59 | 6.47/5.97 | 9.01/8.05 | 4.88/4.58 | 6.40/5.90 | 7.43/7.26 | 9.50/8.69 |
| COP | Cooling/Heating | | | 2.87/3.49 | 3.09/3.75 | 2.77/3.48 | 2.87/3.49 | 3.13/3.80 | 2.69/3.09 | 2.63/3.22 |
| Energy label | Cooling/Heating | | | C/B | B/A | D/B | C/B | B/A | D/D | D/C |
| Inrush current (Max. running current) | | A | | 5(15) | 5(19) | 5(22) | 5(15) | 5(19) | 5(19) | 5(22) |
| Sound level*1 | Indoor*2 | dB(A) | | Hi:41 Me:39 Lo:38 | Hi:44 Me:41 Lo:39 | Hi:46 Me:44 Lo:43 | Hi:39 Me:38 Lo:37 | Hi:41 Me:39 Lo:38 | Hi:39 Me:38 Lo:37 | Hi:41 Me:39 Lo:38 |
| | Outdoor | | | 51 | 57 | Cooling:57 Heating:58 | 51 | 57 | 57 | Cooling:57 Heating:58 |
| Air flow | Indoor*2 | CMM | | Hi:18 Me:14 Lo:12 | Hi:26 Me:23 Lo:21 | Hi:29 Me:26 Lo:23 | Hi:11 Me:9 Lo:7 | Hi:18 Me:14 Lo:12 | Hi:11 Me:9 Lo:7 | Hi:18 Me:14 Lo:12 |
| | Outdoor | | | Cooling:75 Heating:73 | Cooling:150 Heating:145 | | Cooling:75 Heating:73 | Cooling:150 Heating:145 | | |
| Indoor unit: Exterior dimensions | Height x Width x Depth | mm | | 210x1,320x690 | 250x1,620x690 | | 210x1,070x690 | 210x1,320x690 | 210x1,070x690 | 210x1,320x690 |
| Indoor unit: Net weight | | kg | | 36 | 46 | | 30 | 36 | 30 | 36 |
| Indoor unit: Air filter, Q'ty | | | | Pocket Plastic net x2 (Washable) | | | | | | |
| Indoor unit: Remote control(option) | | | | Wired:RC-E3, RCH-E3 Wireless:RCN-E1R | | | | | | |
| Outdoor unit: Exterior dimensions | Height x Width x Depth | mm | | 845x970x370 | 1,300x970x370 | 1,505x970x370 | 845x970x370 | 1,300x970x370 | | 1,505x970x370 |
| Outdoor unit: Net weight | | kg | | 74 | 122 | 140 | 74 | 122 | | 140 |
| Outdoor unit: Ref.control | | | | EEV | | | | | | |
| Outdoor unit: Ref.amount precharged | | kg(m) | | 3.8(30) | 5.4(30) | 7.2(30) | 3.8(30) | 5.4(30) | | 7.2(30) |
| Outdoor unit: Ref.piping size | Liquid/Gas | ø | | 9.52/15.88 | 9.52/22.22 | 12.7/22.22 | 9.52/15.88 | 9.52/22.22 | | 12.7/22.22 |
| Range of usage: Ref.piping length | | m | | 50 | 70 | | 50 | 70 | | |
| Range of usage: Vertical height difference | O/U is higher | m | | 30 | | | | | | |
| Range of usage: Vertical height difference | O/U is lower | m | | 15 | | | | | | |
| Operating temperature range | Cooling | O/U | | -15~43*3 | | | | | | |
| Operating temperature range | Heating | O/U | | -20~20 | -15~20 | | -20~20 | -15~20 | | |

The data are measured under the following conditions(ISO-T1).
Cooling:Indoor temp. of 27˚CDB, 19˚CWB, and outdoor temp. of 35˚CDB. Heating:Indoor temp. of 20˚CDB, and outdoor temp. of 7˚CDB, 6˚CWB.
*1 : Indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
*2 : The values are for one indoor unit operation.
*3 : If a cooling operation is conducted when the outdoor air temperature is –5˚C or lower, the outdoor unit should be installed at a place where it is not influenced by natural wind. If wind blows, the low pressure will drop and compressor frequency will increase, this will cause the capacity to drop and may cause the unit to break down.

# OUTDOOR UNIT (1.5-10.0HP)

SRC40ZIX-S
SRC50ZIX-S*
SRC60ZIX-S*
(1.5HP~2.5HP)

FDC71VN
(3.0HP)

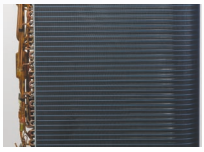
FDC100VN, FDC125VN
FDC140VN, FDC100VS
FDC125VS, FDC140VS
(4.0HP~6.0HP)

FDC200VS
(8.0HP)

FDC250VS
(10.0HP)

*SRC50/60ZIX-S is common for both of outdoor units of SRK50/60ZIX-S (Residential Air-conditioners) and 1.5, 2, 2.5HP of Inverter Packaged Air-Conditioners. Common components make for easy inventory control and the installation procedure will be the same.

**Blue Fin (3~10HP)**
Due to application of blue coated fins (KS101) for the heat exchanger of new outdoor unit, corrosion resistance has been improved compared to current models.



**Base heater kit (option)**
This kit is recommended to be used in an area where the lowest temperature drops below 0˚C.

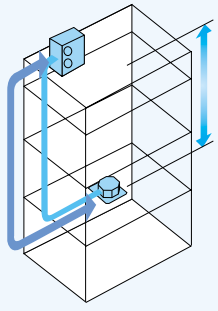
CW-H-E

# Installation workability

**Enhanced installation workability thanks to the extended pipe length – longest level in the industry and pre-charged refrigerant.**

## Point 1 Piping length – 70m

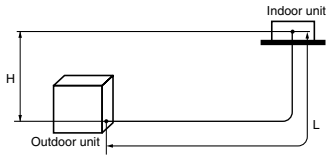
Piping length can be extended up to 70m (8.0, 10.0 HP) both in case single type and multi type, which allows wider design flexibility as well.



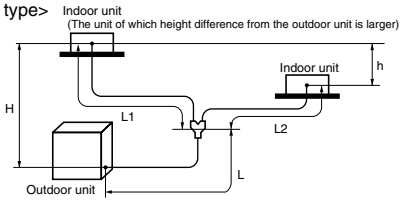
**Height difference (Outdoor higher than indoor)**
1.5~2.5HP ⇒ 20m
3~10.0HP ⇒ 30m

**Piping length**
1.5~2.5HP : 30m
3.0~6.0HP : 50m
8.0~10.0HP : 70m

<Single type>




<Twin type>



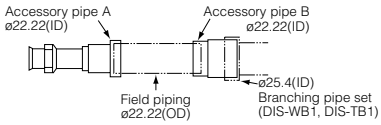

| | Model for outdoor units | | | Dimensional restrictions | Single type | Twin type |
|---|---|---|---|---|---|---|
| One-way pipe length of refrigerant piping | 200V | Liquid Piping | ø9.52 | ≦ 40m | L | L+L1 L+L2 |
| | | | ø12.7 | ≦ 70m | | |
| | 200V 250V | Gas piping | ø25.4 or ø28.58 | ≦ 70m | | |
| | | | ø22.22 | ≦ 35m | | |
| Main pipe length | 200V | Liquid Piping | ø9.52 | ≦ 40m | – | L |
| | | | ø12.7 | ≦ 70m | | |
| | 200V 250V | Gas piping | ø25.4 or ø28.58 | ≦ 70m | | |
| | | | ø22.22 | ≦ 35m | | |
| Height difference between indoor and outdoor units | When the outdoor unit is located higher | | | ≦ 30m | H | H |
| | When the outdoor unit is located lower | | | ≦ 15m | | |
| Height difference between indoor units | | | | ≦0.5m | – | h |

## Point 2 Refrigerant precharged piping length extending to 30m

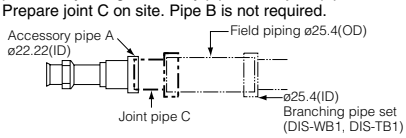
Refrigerant precharged piping length extends up to 30m. (1.5~2.5HP:15m)
This eliminates the need to add refrigerant on site, which sets it free from trouble of excessive or insufficient charging of refrigerant, and allows carrying out the installation smoothly.

### How to use downsizing and upsizing fitting

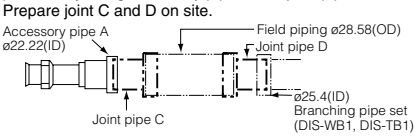
● ø22.22(OD) size of the refrigerant gas pipe can be possible by using accessory pipe A, B.




● ø25.4(OD) size of the refrigerant gas pipe can be possible by using accessory pipe A and joint pipe C. Prepare joint C on site. Pipe B is not required.




● ø28.58(OD) size of the refrigerant gas pipe can be possible by using accessory pipe A and joint pipe C, D. Prepare joint C and D on site.



# Control Systems [Individual control]

## Remote Control line up

| | indoor unit | remote control |
|---|---|---|
| wired | all models | RC-E3 |
| | | RCH-E3 |

| | indoor unit | remote control |
|---|---|---|
| wireless | FDT | RCN-T-36W-E |
| | FDTC | RCN-TC-24W-ER |
| | FDU, FDUM | RCN-KIT3-E |
| | FDEN | RCN-E1R |

## Wired remote control with weekly timer (option)

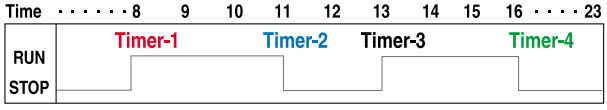
### RC-E3

The RC-E3 controller enables extensive access to service and maintenance technical data combined with easy to use functions and a clear LCD display.

#### Weekly timer function as standard

RC-E3 provides (as a standard feature) a weekly timer, which allows one-week operation schedules to be registered. A user can specify up to four times a day to start/stop the air conditioner. (Temperature setting is also possible with the timer).

#### Timer operation

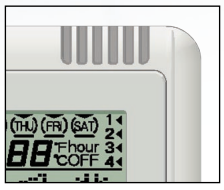



#### Run hour meters to facilitate maintenance checking

RC-E3 stores operation data when an anomaly occurs and indicates the error on the LCD. It also displays cumulative operation hours of the air conditioner and compressor since commissioning.

#### Room temperature controlled by the remote control sensor

The temperature sensor is housed in the top section of the remote control unit. This arrangement has improved the sensitivity of the remote control unit's sensor, which permits more finely controlled air conditioning.



#### Changeable set temperature ranges

RC-E3 allows the upper and lower limits of a set temperature range to be specified separately.
By adjusting a set temperature range, you can ensure energy saving air conditioning by avoiding excessive cooling or heating.

| | Changeable range |
|---|---|
| Upper limit | 20~30°C(effective for heating operation) |
| Lower limit | 18~26°C(effective for non-heating operation) |

## Simple remote control (option)

### RCH-E3 (wired)

NEW

Considering specialized usage in hotel rooms, control buttons are limited only to minimum required functions such as ON/OFF, mode, temperature setting and fan speed. It is really simple and easy to use.

#### Up to 16 units

It can control up to 16 units individually, with pressing the AIR CON No. button.

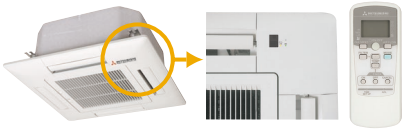
#### AUTO restart

This function allows starting the air conditioner automatically when power supply is restored after power failure or by turning on the power switch.

## Wireless remote control (option)

For wireless control simply insert the infrared receiver kit on a corner of the panel.

**RCN-T-36W-E, RCN-TC-24W-ER**



**RCN-KIT3-E**

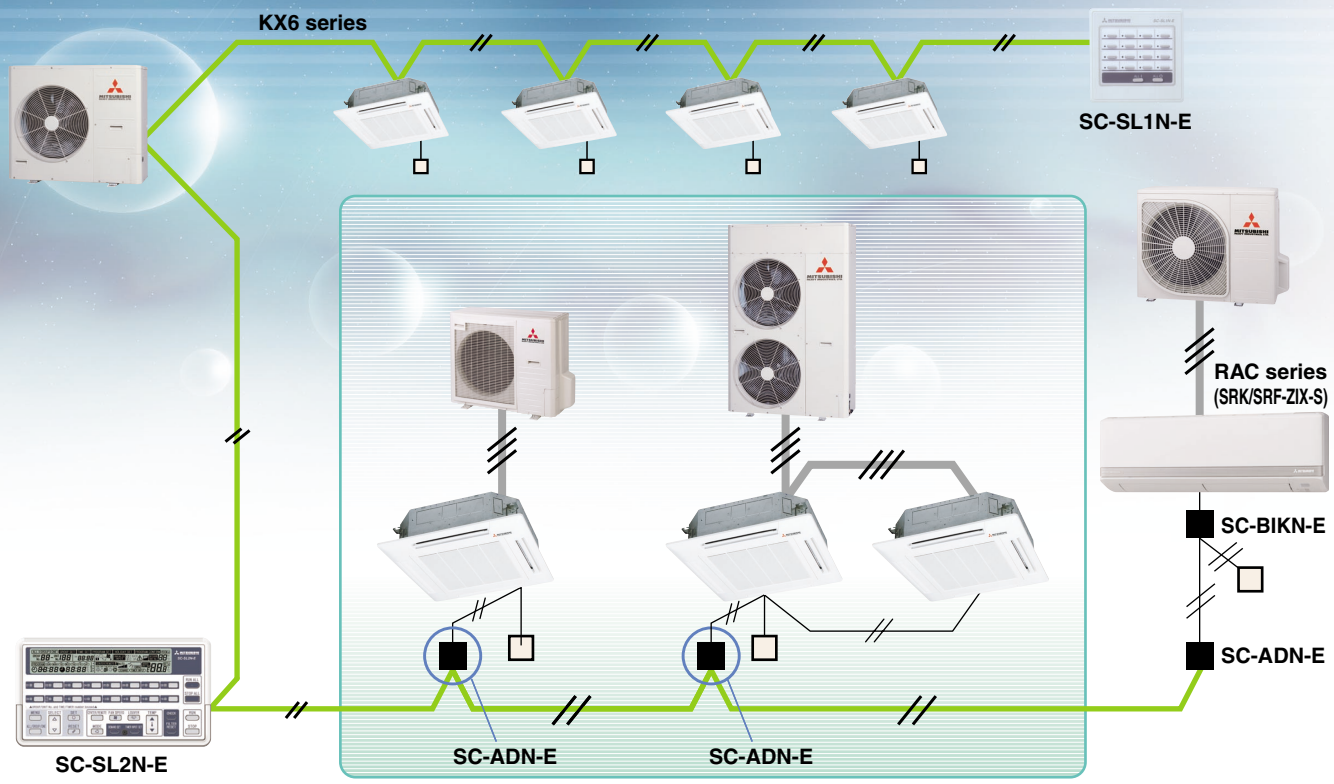
**RCN-E1R**

## Thermistor (option)

### SC-THB-E3

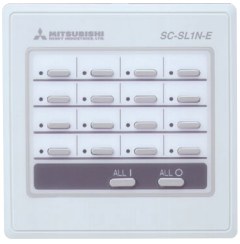
In case sensor in the indoor units or the remote control sensor can not sense the room temperature correctly, or individual remote control in each room is not required but only censor is required (as when center control system is in place), install SC-THB-E3 at proper place in the rooms.

# Control System SUPERLINK-II



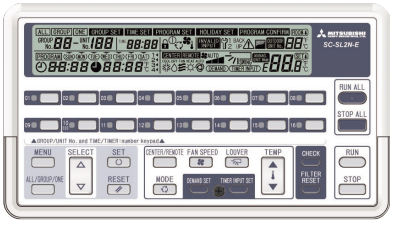

## Central Control

### SC-SL1N-E



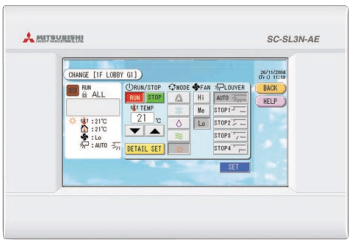
Start/stop control of up to 16 indoor units is possible either individually or collectively. With simple operations, you can effect centralized control.

### SC-SL2N-E



Centralized control of up to 64 indoor units. It can allow connection with a weekly timer without using any interface.

### SC-SL3N-AE/BE



Easy operation realized with a large color LCD and touch panel. Up to 128 indoor units can be controlled, when three SUPERLINK-Ⅱ systems are connected.

## PC windows central control

### SC-WGWN-A/B

(SC-WGWN-B is with electric power calculation function)

Up to 96 cells (some cells can have two or more indoor units and total number of indoor units can be up to 128 units) are controlled from the Internet Explorer.

Additional engineering service cost etc. is required. Please consult your dealer when using this central control.

## BMS interface unit

### SC-BGWN-A/B

**(BACnet gateway)**

(SC-WGWN-B is with electric power calculation function)

Up to 96 cells (some cells can have two or more indoor units and total number of indoor units can be up to 128 units) are controlled centrally from a BMS.

Additional engineering service cost etc. is required. In case of SC-BGWN-B, communication test by qualified person regarding electric cost calculation function is required before commissioning. Please consult your dealer when using this gateway.

### SC-LGWN-A

**(LonWorks gateway)**

Up to 96 indoor units (48 indoor unit x 2) are linked as an open network! Centrally controlled through LonWorks!

Additional engineering service cost etc. is required. Please consult your dealer when using this gateway.

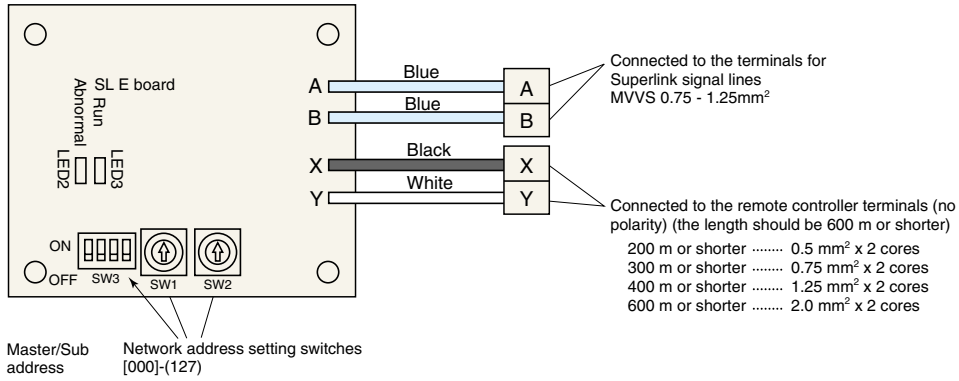
# SUPERLINK E BOARD (SC-ADN-E)

This board is used when conducting control of the single package (wired remote control unit) 1-type series using a network option (SC-SL1N-E, SC-SL2N-E, etc).

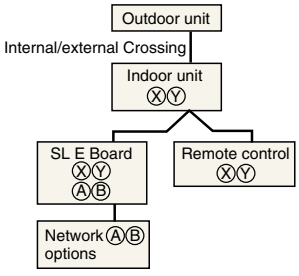
## (1) Functions

(a) Transmits the settings from the network option to the indoor units.
(b) Returns the priority indoor unit data in response to a data request from the network option.
(c) Inspects the error status of connected indoor units and transmits the inspection codes to the network option.
(d) A maximum of 16 units can be controlled (if in the same operation mode).

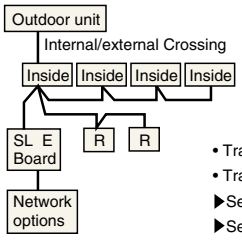
## (2) Wiring connection diagram




### Basic Connections

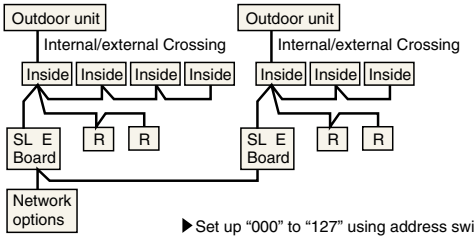



### Plural Controls by Multiple Remote Controls. Mixture of Multiple Units



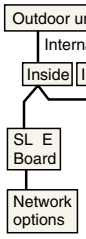

- Transmit the information of plural "Master" units to the network.
- Transmit the abnormalities of the "Slave" units to the network.
- ▶Setting the plural "Master/Slave" units with the dip SW of the printed circuit board.
- ▶Setting the "Master/Slave" remote controls with the dip SW of the remote control board.

### Plural Controls by Multiple Remote Controls. Mixture of Multiple Units



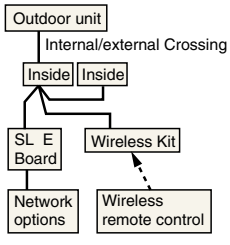

▶Set up "000" to "127" using address switch on the SL E board.

### Without Remote Control

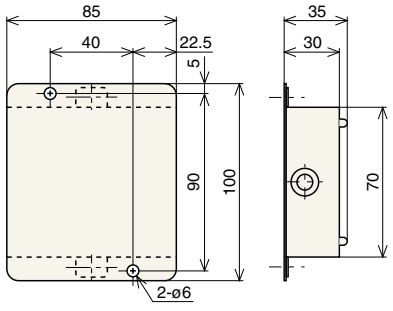



▶Set the SL E board dip SW to "Master" SW3-1 ON.
∗The network option SLA-1-E, SL1N-E is not allowed (This will disturb switching of the operation mode)

### Wireless Kit



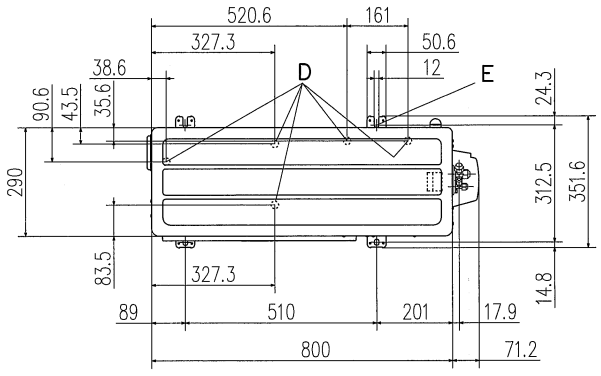

## (3) Metal box dimension

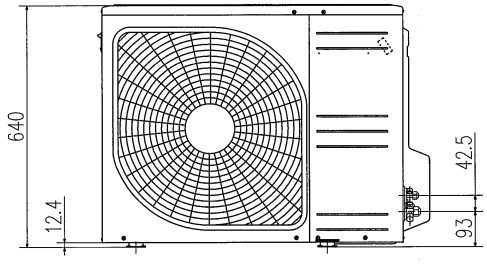


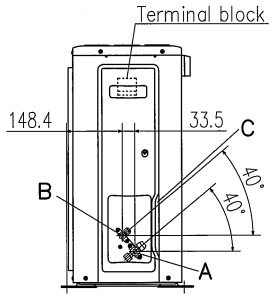
# OUTDOOR UNIT DIMENSIONS

## SRC40ZIX-S, 50ZIX-S, 60ZIX-S (unit:mm)

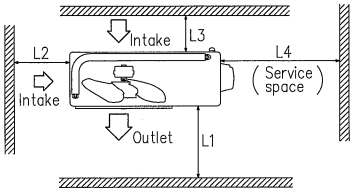
| Symbol | Content | |
|---|---|---|
| A | Service valve connection (gas side) | ϕ12.7 (1/2") (Flare) |
| B | Service valve connection (liquid side) | ϕ6.35 (1/4") (Flare) |
| C | Pipe/cable draw-out hole | |
| D | Drain discharge hole | ϕ20×5places |
| E | Anchor bolt hole | M10×4places |




Notes
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front panel

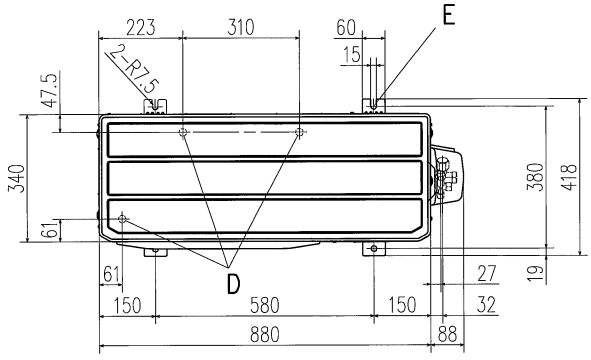


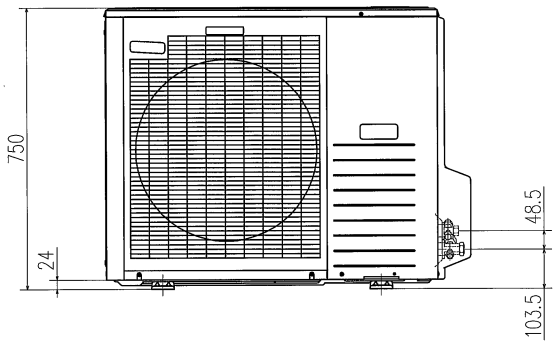

Minimum installation space

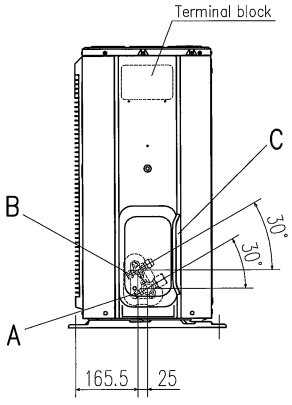
| Examples of installation / Dimensions | I | II | III | IV |
|---|---|---|---|---|
| L1 | Open | 280 | 280 | 180 |
| L2 | 100 | 75 | Open | Open |
| L3 | 100 | 80 | 80 | 80 |
| L4 | 250 | Open | 250 | Open |

## FDC71VN (unit:mm)

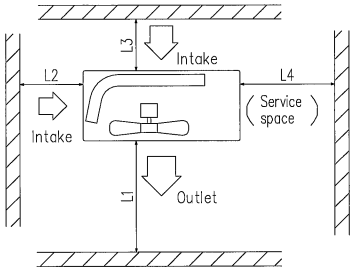
| Symbol | Content | |
|---|---|---|
| A | Service valve connection (gas side) | ϕ15.88 (5/8") (Flare) |
| B | Service valve connection (liquid side) | ϕ9.52 (3/8") (Flare) |
| C | Pipe/cable draw-out hole | |
| D | Drain discharge hole | ϕ20×3places |
| E | Anchor bolt hole | M10×4places |




Notes
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more the 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front.



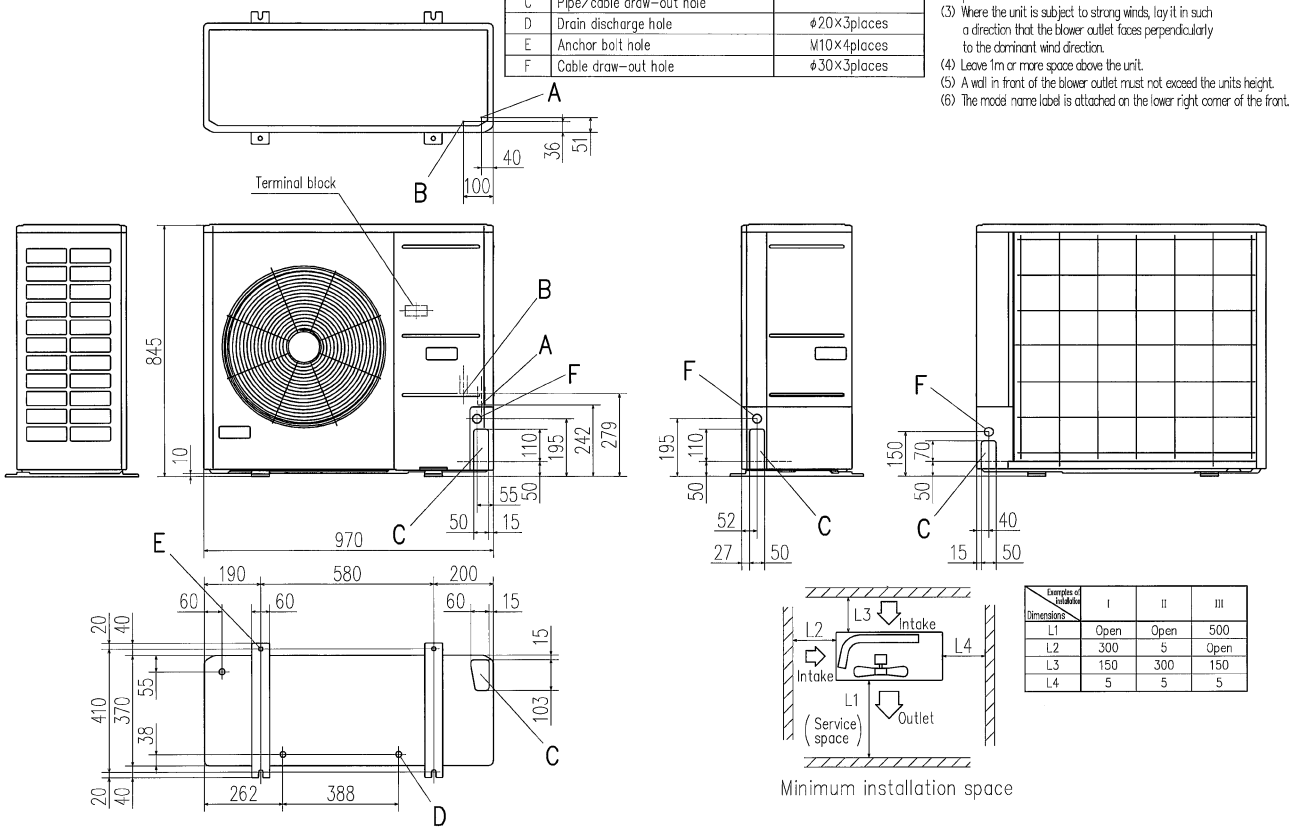

Minimum installation space

| Examples of installation / Dimensions | I | II | III |
|---|---|---|---|
| L1 | Open | Open | 500 |
| L2 | 300 | 250 | Open |
| L3 | 100 | 150 | 100 |
| L4 | 250 | 250 | 250 |

## FDC100VN, 125VN, 140VN
## 100VS, 125VS, 140VS (unit:mm)

| Symbol | Content | |
|---|---|---|
| A | Service valve connection (gas side) | ϕ15.88 (5/8") (Flare) |
| B | Service valve connection (liquid side) | ϕ9.52 (3/8") (Flare) |
| C | Pipe/cable draw-out hole | |
| D | Drain discharge hole | ϕ20×3places |
| E | Anchor bolt hole | M10×4places |
| F | Cable draw-out hole | ϕ30×3places |

Notes
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more the 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front.

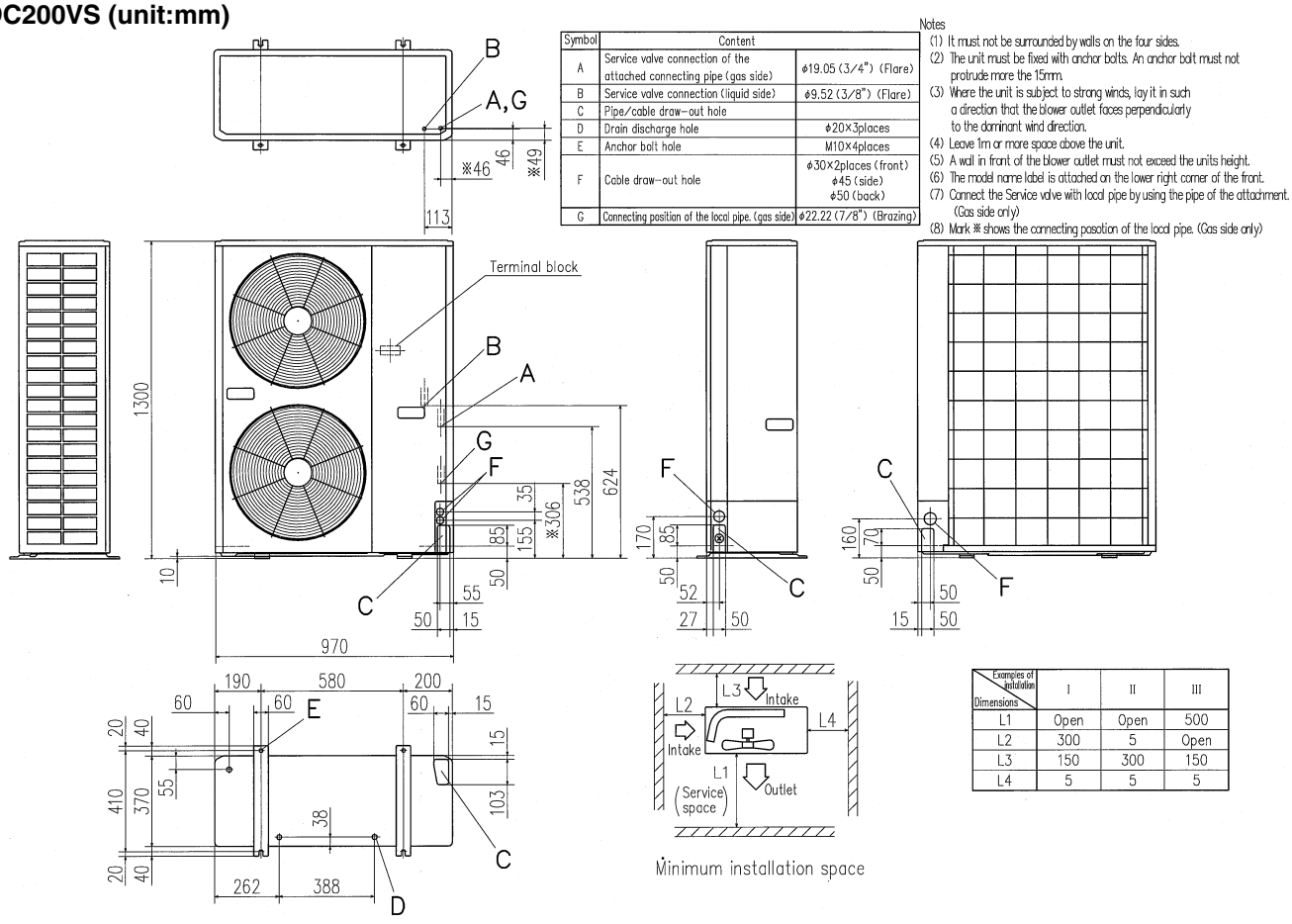



| Examples of installation / Dimensions | I | II | III |
|---|---|---|---|
| L1 | Open | Open | 500 |
| L2 | 300 | 5 | Open |
| L3 | 150 | 300 | 150 |
| L4 | 5 | 5 | 5 |

## FDC200VS (unit:mm)

| Symbol | Content | |
|---|---|---|
| A | Service valve connection of the attached connecting pipe (gas side) | ϕ19.05 (3/4") (Flare) |
| B | Service valve connection (liquid side) | ϕ9.52 (3/8") (Flare) |
| C | Pipe/cable draw-out hole | |
| D | Drain discharge hole | ϕ20×3places |
| E | Anchor bolt hole | M10×4places |
| F | Cable draw-out hole | ϕ30×2places (front) ϕ45 (side) ϕ50 (back) |
| G | Connecting position of the local pipe. (gas side) | ϕ22.22 (7/8") (Brazing) |

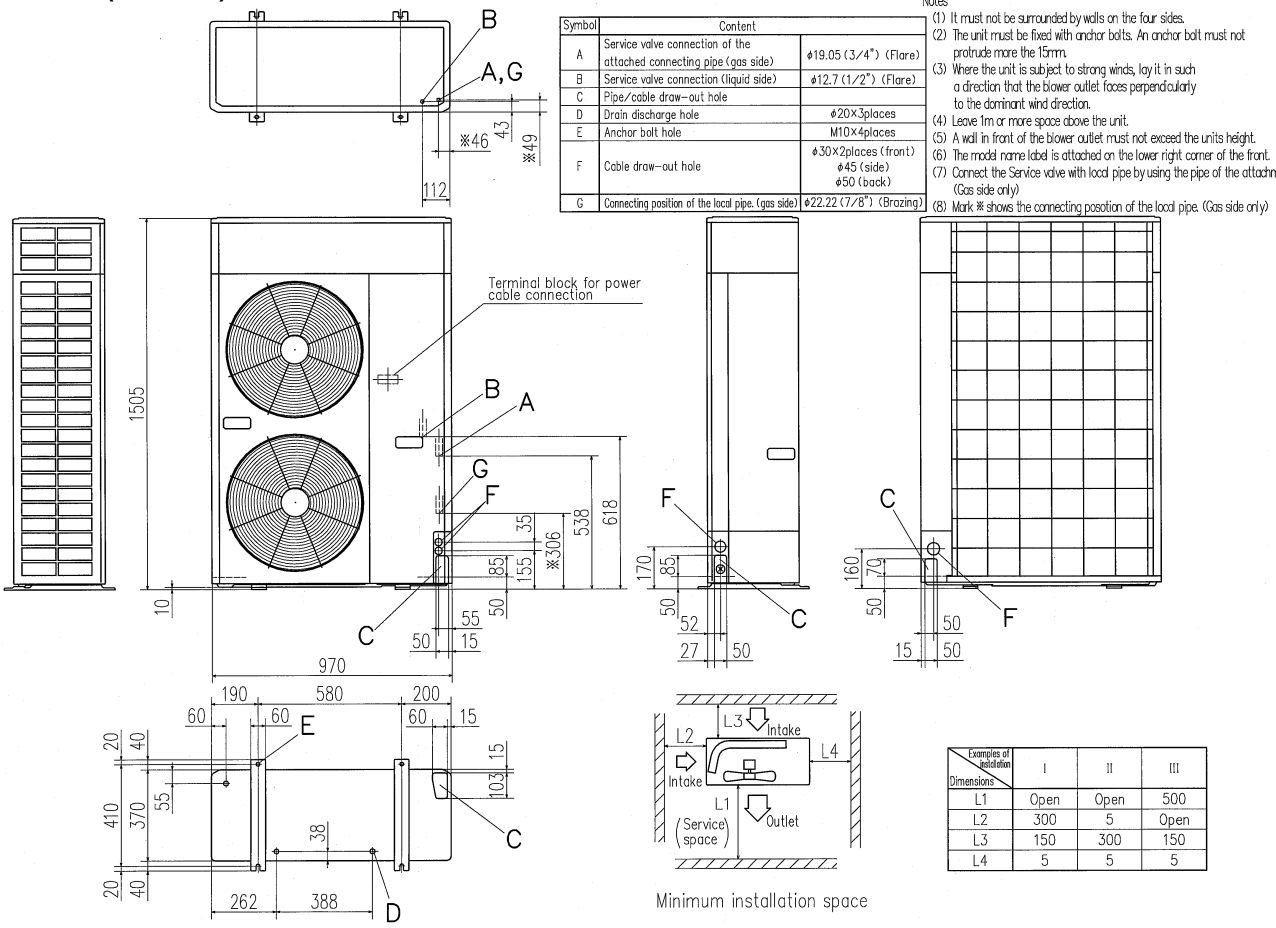
Notes
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more the 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front.
(7) Connect the Service valve with local pipe by using the pipe of the attachment. (Gas side only)
(8) Mark ※ shows the connecting posotion of the local pipe. (Gas side only)




| Examples of installation / Dimensions | I | II | III |
|---|---|---|---|
| L1 | Open | Open | 500 |
| L2 | 300 | 5 | Open |
| L3 | 150 | 300 | 150 |
| L4 | 5 | 5 | 5 |

# OUTDOOR UNIT DIMENSIONS

## FDC250VS (unit:mm)




| Symbol | Content | |
|---|---|---|
| A | Service valve connection of the attached connecting pipe (gas side) | ϕ19.05 (3/4") (Flare) |
| B | Service valve connection (liquid side) | ϕ12.7 (1/2") (Flare) |
| C | Pipe/cable draw-out hole | |
| D | Drain discharge hole | ϕ20×3places |
| E | Anchor bolt hole | M10×4places |
| F | Cable draw-out hole | ϕ30×2places (front) ϕ45 (side) ϕ50 (back) |
| G | Connecting position of the local pipe. (gas side) | ϕ22.22 (7/8") (Brazing) |

Notes
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts. An anchor bolt must not protrude more the 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave 1m or more space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The model name label is attached on the lower right corner of the front.
(7) Connect the Service valve with local pipe by using the pipe of the attachment. (Gas side only)
(8) Mark ※ shows the connecting posotion of the local pipe. (Gas side only)

| Examples of installation / Dimensions | I | II | III |
|---|---|---|---|
| L1 | Open | Open | 500 |
| L2 | 300 | 5 | Open |
| L3 | 150 | 300 | 150 |
| L4 | 5 | 5 | 5 |

# Before starting use

### Heating performance
The heating performance values (kW) described in catalog are the values obtained by operating at an outdoor temperature of 7℃ and indoor temperature of 20℃ as set forth in the ISO Standards. As the heating performance decreases as the outdoor temperature drops, if the outdoor temperature is too low and the heating performance is insufficient, use other heating appliances as well.

### Indication of sound values
The sound values are the values (A scale) measured in a chamber such as an anechoic chamber following the ISO Standards. In the actual installation state, the value is normally larger than the values given in the catalog due to the effect of surrounding noise and echo. Take this into consideration when installing.

### Use in oil atmosphere
Avoid installing this unit in as atmosphere where oil scatters or builds up, such as in a kitchen or machine factory.
If the oil adheres to the heat exchanger, the heat exchanging performance will drop, mist may be generated, and the synthetic resin parts may deform and break.

### Use in acidic or alkaline atmosphere
If this unit is used in acidic atmosphere such as hot spring areas having high level of sulfuric gases or in alkaline atmosphere including ammonia or calcium chloride, places where the exhaust of the heat exchanger is sucked in, or at coastal areas where the unit is subject to salt breezes, the outer plate or heat exchanger, etc., will corrode. Please ask a dealer or specialist when you use an air conditioner in places differing from a general atmosphere.

### Use in places with high ceilings
If the ceiling is high, install a circulator to improve the heat and air flow distribution when heating.

### Refrigerant leakage
The refrigerant (R410A) used for Air conditioner is non-toxic and inflammable in its original state.
However, in consideration of a state where the refrigerant leaks into the room, measures against refrigerant leaks must be taken in small rooms where the tolerable level could be exceeded. Take measures by installing ventilation devices, etc.

### Use in snowy areas
Take the following measures when installing the outdoor unit in snowy areas.

**·Snow prevention**
Install a snow-prevention hood so that the snow does not obstruct the air intake port or enter and freeze in the outdoor unit.

**·Snow piling**
In areas with heavy snow fall, the piled snow could block the air intake port. In this case, a frame that is 50cm or higher than the estimated snow fall must be installed underneath the outdoor unit.

### Automatic defrosting device
If the temperature is low, and the humidity is high, frost will stick to the heat exchanger of the outdoor unit. If use is continued, the heating performance will drop.
The "Automatic defrosting device" will function to remove this frost.
After heating for approx, three to ten minutes, it will stop, and the frost will be removed. After defrosting, hot air will be blown again.

### Servicing the air-conditioner
After the air-conditioner is used for several seasons, dirt will build up in the air-conditioner causing the performance to drop. In addition to regular servicing, we recommend the maintenance contract (charged for) by a specialist.

# ⚠ Safety Precautions

### Air-conditioner usage target
The air-conditioner described in this catalog is a dedicated cooling/heating device for human use.
Do not use it for special applications such as the storage of foodstuffs, animals or plants, precision devices or valuable art, etc.
This could cause the quality of the items to drop, etc.
Do not use this for cooling vehicles or ships. Water leakage or current leaks could occur.

### Before use
Always read the "User's Manual" thoroughly before starting use.

### Installation
Always commission the installation to a dealer or specialist. Improper installation will lead to water leakage, electric shocks and fires.
Make sure that the outdoor unit is stable in installation. Fix the unit to stable base.

### Usage place
Do not install in places where combustible gas could leak or where there are sparks.
Installation in a place where combustible gas could be generated, flow or accumulate, or places containing carbon fibers could lead to fires.

MITSUBISHI HEAVY INDUSTRIES, LTD.

**Japan Head Office:**
Mitsubishi Heavy Industries Ltd
16-5 2-Chome Kounan Minato-ku Tokyo
108-8215, Japan
**www.mhi.co.jp**

**Our factories are ISO9001 and ISO14001 certified.**

**Certified ISO 9001**

BIWAJIMA PLANT
Mitsubishi Heavy Industries, Ltd.
Air-conditioning & Refrigeration Systems Headquarters
Certificate number : JQA-0709

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Certificate Number : 04100 1998 0813

Mitsubishi Heavy Industries-Haier (Qingdao) Air-conditioners Co.,Ltd.
Certificate Number : 5170-1996-AQ-RCG-RvA

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Air-conditioning & Refrigeration Systems Headquarters
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MITSUBISHI HEAVY INDUSTRIES-MAHAJAK AIR CONDITIONERS CO.,LTD.
Certificate Number : 04104 1998 0813 E5

Mitsubishi Heavy Industries-Haier (Qingdao) Air-conditioners Co.,Ltd.
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